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## ABSTRACT

The purpose of this demonstration project was to determine what syllabi existed for the instruction of communicative skills in a rehabilitation center for the blind, and to develop appropriate syllabi for these skills. A study of instruction in eight rehabilitation centers representing voluntary state and federally sponsored agencies revealed that a syllabus for the entire area of communicative skills did not exist. Some centers had excellent material and detailed plans of instruction in specific areas. All participating centers liberally contributed samples of instructional and evaluation materials. Syllabi for the following six areas of communicative skills instruction were developed: (1) braille usage (reading and writing), (2) reading by listening, (3) reading by use of residual vision, (4) typewriting, (5) oral communication, and (6) arithmetic and related computation skill. The syllabi were designed to help instructors evaluate the person seeking services, set realistic goals of achievement, and interpret goals in terms of functional rehabilitation performance. (Author/BC)

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**FINAL REPORT**

**RESEARCH AND DEMONSTRATION PROJECT NO. RD-2618-S-'68**

**SYLLABUS AND ITS DEVELOPMENT  
FOR  
INSTRUCTION OF COMMUNICATIVE SKILLS  
IN A  
REHABILITATION CENTER FOR THE BLIND**

**February 1, 1968 to June 30, 1969**

**Arkansas Enterprises for the Blind, Inc.  
2811 Fair Park Boulevard  
Little Rock, Arkansas 72204**

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FINAL REPORT  
of a  
RESEARCH AND DEMONSTRATION PROJECT

entitled

"THE DEVELOPMENT OF A SYLLABUS  
FOR INSTRUCTION OF COMMUNICATIVE SKILLS  
IN A  
REHABILITATION CENTER FOR THE BLIND"

Conducted by the

ARKANSAS ENTERPRISES FOR THE BLIND, INC.  
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2811 Fair Park Boulevard  
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## RESEARCH BRIEF

### A SYLLABUS FOR INSTRUCTING COMMUNICATIVE SKILLS IN A REHABILITATION CENTER FOR THE BLIND

The preparation and development of the Research and Demonstration Project was conducted by the Arkansas Enterprises for the Blind, Inc., Little Rock, Arkansas, with the assistance of Grant RD 2618-S made by the Social and Rehabilitation Service, Washington, D. C. The project operated from February 1, 1968 to June 30, 1969.

The purpose of the grant was to determine what syllabus existed for the instruction of communicative skills in a rehabilitation center for the blind, and to develop appropriate syllabi for these skills. Instruction in eight rehabilitation centers representing voluntary, state, and federally sponsored agencies was studied. It was found that a syllabus for the entire instructional area of communicative skills did not exist. Some centers had excellent material and detailed plans of instruction in specific areas. All participating centers liberally contributed samples of instructional and evaluation materials. From the study there were developed syllabi for the following six areas of communicative skills instruction:

1. Braille Usage; Reading and Writing
2. Reading By Listening
3. Reading By Use of Residual Vision
4. Typewriting
5. Oral Communication
6. Arithmetic and Related Computation Skill

The resulting syllabus for each area of instruction in communicative skills is designed to help the respective instructors to evaluate the person seeking services, set realistic but flexible goals of achievement and interpret progress toward these goals to the rehabilitation counselor in terms of functional rehabilitation performance.



## ABSTRACT

This report is the result of a study which grew out of an expressed need by some professional workers with the blind for more exact approaches to instruction in communicative skills in a rehabilitation center for the blind. Perhaps there was a feeling of need for more clearly defining or delimiting this broad area of instruction.

The Comstac Report, at least, suggested a minimum program of communicative skills when it listed six areas of teaching which should be an integral part of services offered in a rehabilitation center for the blind.

The study on which this report is made was based on the outline of instructional areas listed by Comstac, but one area was subdivided and an additional area related to the efficiency of learning, in the opinion of the research staff, was added.\*

The report of findings, made in narrative, is the result of a survey conducted in eight centers serving the adult blind regarding their work in eight areas of teaching communicative skills. The eight areas investigated are: (1) Braille Usage (2) Reading by Listening (3) Reading by Use of Residual Vision (4) Handwriting (5) Typewriting (6) Oral Communication (7) Arithmetic and Skills of Computation (8) Equipment and Furniture. The eighth is not a communicative skill but was felt by the research staff to be related to the efficiency of learning some of the specific skills.

The syllabus, created as the result of this study, should be regarded as a 'guide' rehabilitation centers may use when instructing in the respective areas. It should be regarded as a wide ranged suggestive procedure for attaining the sometime rigid, but more frequently flexible, goals of rehabilitation. Some materials of instruction are also mentioned, but with no claim to these being the ultimate in development or to the list being exhaustive of that which is available.

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\*Comstac Report includes both handwriting and typewriting in the one area of "Writing". p. 266, sec. 3.1.4.

## ACKNOWLEDGEMENTS

In the new field of services which encompass such a range of professional disciplines and some activities which have not yet become professionalized, it would be quite an achievement, much beyond this project director's ability, to develop anything without the involvement of many others. For that reason it is appropriate to acknowledge the help of the many who have given time, thought, and materials.

Professional ethics, as well as direct commitment prevents the naming of the eight rehabilitation centers which opened wide their facility to the study on which this report is based. They each well know our debt of gratitude, and to some which readily offered help, but due to situations which prevented their participation we also express regret, however, the field is yet open to them.

To the Advisory Committee, the workshop members, and to those staff members of the Arkansas Enterprises for the Blind, the sponsoring agency, we acknowledge your unselfish helpfulness.

To the Division of Research Grants, Social and Rehabilitation Service, Department of Health, Education and Welfare, for their support and considerate understanding, we express appreciation.

Roy Kumpe, Co-Director  
R. T. Ludden, Field Investigator  
Lillian Kliewer, Secretary  
J. O. Murphy, Project Director

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## SIGNIFICANT FINDINGS

This study was based upon an investigation of how and what is done in eight rehabilitation centers for the adult blind to restore or develop communicative skills. The investigation was structured by using the specific basic areas of communicative skills listed on page 266 of sec. 3.1 and 3.2 of the Comstac Report as an integral part of the offerings of a rehabilitation center for the blind. The six areas listed in the Comstac Report were subdivided to make seven and one additional area of inquiry pertaining to equipment and furniture, which was felt by the research staff to be important, was added.

The eight areas studied were: (1) Braille Usage (2) Reading by Listening (3) Reading by Residual Vision (4) Handwriting\* (5) Typewriting (6) Oral Communication (7) Arithmetic and Skilled Methods of Computation (8) Equipment and Furniture.

1. On a weighted scale there was 85 percent concurrence in the area of instruction included in communicative skills.
2. Braille, Handwriting and Typewriting are offered in all eight centers; prime importance.
3. Reading by Listening and Oral Communication were instructed in all but one center; second to prime importance.
4. Arithmetic and Skilled Method of Computation were instructed in all but two centers; third in prime importance.
5. Reading by Residual Vision was instructed in only four centers; fourth in prime importance.
6. (a) Equipment and Furniture, as a related factor to learning, had been given consideration in typewriting instruction in all but one center, but only one center had experimented with these two factors as they related to Braille Usage.  
  
(b) All but one center felt Book Binding and Design were important factors in releasing inhibitions that could decrease learning efficiency.

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7. So-called standard educational achievement tests, as used in public schools, were scarcely used for evaluation of a

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\*Comstac Report included both handwriting and typewriting in the one area of "Writing," Comstac Report, p. 266, sec. 3.1.4.

client's present level of achievement. Staff assessment of performance during an evaluation period was felt to be the most dependable guide to establishing an individual's training program.

8. Evaluation of functional performance in all areas of communicative skills, in order to establish present efficiency of the skill and determine the goal of performance to which one may be restored, or enabled to develop, is practiced by all centers.
9. Progress in learning, as evidenced by performance at the levels indicated by the rehabilitation goals, is more relied upon than any other measure of achievement.
10. Interpretation of functional performance in all areas of skills related to the rehabilitant's goal was regarded as the most constructive motivational force.
11. Incentive for development, in most areas of communicative skills, by reflecting progress in learning through pre and post testing of skills and keeping accurate records, was implied in the experience of some centers from specific experiments in one or more areas.

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12. Rehabilitation centers see themselves as a restorative service for the person who once functioned independently as a sighted person and as a developing service for the person who has never functioned with sight, but yet needs to become more adequate; the concept of rehabilitation for the former, and the concept of habilitation for the latter, relates realistically to the methods and extent of services provided in rehabilitation centers for the blind.

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13. The experiences and philosophies of rehabilitation centers in meeting individual needs, as they are assessed, indicate the need for a flexible guide to evaluation and training, rather than a syllabus of strict course requirements, as it is used in an academic setting.
14. Content of instructional materials on an adult level of experience was felt to be needed.
15. Methods of instruction and arrangement of materials of instruction were found to be interrelated, the method often being determined by the materials available.

16. Readiness for instruction, using the modalities of touch and hearing, was regarded as an important factor in efficient learning, which sometimes had inadequate provision in the instructional materials widely used.
17. The creation of a positive attitude toward learning skills, based upon the modalities of touch and hearing, is more readily developed by introductory processes of using familiar materials which the new modalities can portray, before one is presented to a precise code or technique of communication. Such processes and materials are customarily referred to as pre-braille, or orientation materials or kinesthetic education materials.



## CHAPTER I

### INTRODUCTION

#### Background Information on Project

The period since 1945 has witnessed the emergence of several rehabilitation facilities for serving the blind adult. Programs for developing independent travel skills for blinded World War II veterans, known today as orientation and mobility skills, led the way but soon the needs for other competencies were recognized. As needs were identified, other areas of training were initiated, frequently on a part time basis. Literate performance was one need readily identified. It encompassed several skills which are usually attained by both blind and sighted youth by the age of 12, or by the time they have completed elementary school.

One's need for these skills was viewed with various degrees of urgency, according to what the vocational objective might be. Eventually, there evolved in most facilities, a set of instructional activities closely related to academic elementary education. These were: braille reading and writing; handwriting; identifying coins by touch and making change, which sometimes required instruction in the arithmetic process of addition; reading by use of residual vision; using sight saving or large print; reading by listening, at first limited to talking book machines, later including tape recorders; oral communication, at first simple public speaking, sometimes patterned after the Dale Carnegie courses; abacus instruction, an outgrowth of arithmetic instruction for change making and a need for a quick method of calculation; and typewriting as a communication media with sighted persons, though at first and as of now, used in some instances as a finger and hand dexterity exercise. The evolution of this train of activities for developing the communicative skill of blind persons seeking personal competence continues. Some facilities do not now use all of these activities but when referring to their rehabilitation training program always include communicative skills as an area of training. No standard outline, guide or syllabus for such instruction has been adopted, and perhaps will never be. The focus on the need for this project came to the awareness of the Grantee Staff during a requested review of administration and program analysis conducted by a team from the American Foundation for the Blind in January 1966. Analytic study and discussion of instructional content and methods led the representatives of the Foundation to reveal the expressions of need for a syllabus that had come to their attention. It was inferred that interest in such a syllabus had come from the field of workers, as well as from other sources interested in the development of services for the blind. Inquiries at that time indicated some excellent work in specific skills in this broad area of instruction but that no complete syllabus had been developed.

Two applications for project support were submitted. The first application proposed to limit the syllabus to the area of braille usage but on the suggestion of the Advisory Council it was revised to include a study of the broader field commonly referred to as communicative skills as offered



in representative rehabilitation centers for the blind.

By June 1967 a revised application was submitted with a prospective beginning date of October 1, 1967 and completion date of September 30, 1968. Priority controls delayed approval of the project until the first quarter of 1968, although preliminary phases of the project continued to be developed by the staff of the grantee agency.

#### Statement of the Problem

The problem justifying such a project was stated in the application to be:

"The goal of training in communication skills in a rehabilitation center is to make available to individuals, who need or can make use of it, sufficient instruction for the restoration or improvement of communicative skills lost or resulting from the deprivation of vision. The Comstac Report gives the following information in discussing and outlining the specific areas to be taught in communicative skills in a rehabilitation center for the blind."

"3.1 Specific Areas of Teaching: Teaching of communicative skills is an integral part of the services offered by the rehabilitation center. These services include teaching in the following specific areas:

1. Reading of Braille: texts and own writing.
2. Reading by Listening: reading comprehension; talking book; tape recording; tape transcribing.
3. Reading by Use of Residual Vision: optical aids; clear type print; remedial instruction.
4. Writing: braille, slate and braille writer; handwriting techniques; typing; composing on tape recorder and transcriber, remedial instruction.
5. Oral Communication: appropriate gesticulation; tonality; voice modulation.
6. Arithmetic Computation: regular braille number system; slate; brailler; methods of printing large numbers; types of ink, pencils and types of paper; abacus, circular slide rule; cubarithm arithmetic slate; braille codes of mathematics; mental arithmetic; remedial instruction.<sup>1</sup>

"The instruction should assist each individual to develop effective means of communicating the written word to himself and those around him, of reading that which will satisfy his own vocational, personal, recreational, educational needs, and of arithmetic computation. The level of achievement in the area of communicative skills will vary

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<sup>1</sup>The Comstac Report: Standards for Strengthened Services, Commission on Standards and Accreditation of Services for the Blind, 1966.

from individual to individual because of the many factors, including educational backgrounds, social and environmental conditions, individual personality and many others.

Thus, we in the rehabilitation field are faced with an old familiar principle - an instructional program in communicative skills must be highly individualized -- (1) "There has not been a syllabus developed designed to meet individual needs for such instructions in a rehabilitation center for the blind. (2) How can a program of instruction in communication skills be highly individualized when some one hundred fifty to two hundred fifty clients of rehabilitation referrals are served annually -- (3) Can an evaluation scale be developed that will assist a center staff to determine the individual client's need in the area of instruction in communicative skills. ---- Most centers appear to have a certain number of commonalities; common problem of no syllabus for all offerings to meet individual needs; but basic types of services are offered; basically same clients (blind and partially blind) are served; range of educational levels from illiteracy to university graduates, culturally, cross section, deprived to affluent."

The foregoing statement of the problem of developing a syllabus for instructing communicative skills in a rehabilitation center for the blind sets out some very critical "landmarks" of concern for rehabilitation centers. The genius of all rehabilitation service is the individuality of the service. This principle is respected and observed in the training services offered in rehabilitation facilities. Whatever the casual observer sees in a rehabilitation center training activity that is interpreted to be a course of study or a class in session is a facade interpretation. While three, four or eight persons may be seated in the same training area with only one instructor, an analysis of what is being done by each person reveals an individual assignment and individualized instruction for each, rather than a course presentation for class consideration. Each person is receiving a specific evaluated level of instruction and is functioning in competition only with himself and not with the class.

It is in this area of individualization that the basic problem of developing a worthwhile syllabus for use in a rehabilitation center must deal. A syllabus is basically defined in English by Webster as "a summary outline of a discourse, treatise, or course of study or of examination requirements." A more elaborate definition states "a syllabus gives the material necessary for a comprehensive view of a whole subject, often in the form of a series of heads or propositions." The term itself is much more related to the academic field than it is to the rehabilitation field as indicated in its Greek and Late Latin derivations. Perhaps, it is this fact that accounts for the absence of syllabi in rehabilitation centers which, of itself, sounds a note of caution in their use. "Guidelines" is a term much more related to the function and nomenclature of rehabilitation. The rehabilitation center instructor must, in his own thinking, interpret that part of the definition of a syllabus which specifies it to be "a comprehensive view of a whole



subject to mean "as comprehensive view of a whole subject as this person is capable of seeing at this time."

There are adequate implications in the definition to provide worthwhile assistance for the instructor in communicative skills, and enhance the learning proficiency of the trainee, provided the instructor is more oriented to the rehabilitation process than to the academic process. These clues in the definition are the "a comprehensive view -- in the form of heads or propositions." These heads must represent usable area - as applied to this person, his present emotional state, his education, his social development and his conscious vocational objective. When thinking of these heads as propositions, an instructor in a rehabilitation center may do well to remember that someone once said, "all propositions did not rest on four legs."

Rehabilitation centers, according to recent first hand reports, which set a rather rigid rate of progress toward a fixed goal of achievement, find themselves spewing out the unrehabilitated person and taking on another who may be no more capable of development than the one he is replacing. The caution of applying standards of academic or vocational competencies in the early stages of rehabilitation is an awareness that must remain with the instructor in a rehabilitation center in spite of any acclaimed excellence of a syllabus.

The foregoing discussion of the problems relating to the use of a syllabus in a rehabilitation center for the blind may become more realistic when the factors of educational background and age are observed. While no authentic statistics are available to indicate the distribution of the above factors in the total population of rehabilitation centers, a sample survey of one center's population of approximately 2000 persons served over a 20-year period and a spot-check of a recent current one-month period can be given. The following table indicates the distribution by age and educational level.

Table II. Factors of Age and Education Found in a Rehabilitation Population

| College                   | 1. Illiterate | 2. Elementary | Junior<br>3. High | Senior<br>4. High | 5. College |
|---------------------------|---------------|---------------|-------------------|-------------------|------------|
| Experience of<br>20 years | 6%            | 14%           | 23%               | 42%               | 15%        |
| A Recent<br>Current Month | 12%           | 20%           | 23%               | 37%               | 8%         |
| Age Range<br>20 Years     | 19-56         | 17-62         | 15-65             | 16-84             | 24-55      |
| A Recent<br>Current Month | 17-36         | 15-54         | 16-70             | 19-61             | 24-54      |
| Average Age<br>20 Years   | 35            | 32            | 30                | 27                | 41         |
| A Recent<br>Current Month | 23            | 23            | 32                | 36                | 41         |



Table II pointedly indicated a wide spread of educational levels ranging from illiteracy to college and a solid base of the adult age when reviewed either as range of age or average age. Probably the most significant indication for future planning of instructional materials and staff training seen in the educational factor is the increase in percentage of illiterate persons served in a recent current month as compared with the 20 years experience. This may reflect the shift of emphasis on evaluation empowered in recent rehabilitation legislation, although at this time it has not been established that this one-month experience is a valid forecast. Much more certain are the indications of the age factor. Definitely, instructional materials and methods of instruction in rehabilitation centers must be attuned to the adult level of experience, regardless of educational levels. Implications for the representative distribution of age may be seen in comparing the 1962 estimate and the 1977 projection as shown in Table III.<sup>3</sup>

Table III. General Adult Population Distributions

| Age Group   | 1962 Percent | 1977 Percent |
|-------------|--------------|--------------|
| Under 20    | 9.8          | 9.5          |
| 20 - 39     | 13.5         | 13.7         |
| 40 - 64     | 29.5         | 27.1         |
| 65 - 69     | 8.9          | 8.4          |
| 70 and over | 38.3         | 41.3         |

From both tables, II and III, it is obvious that the rehabilitation center population is an adult population and likely to remain so.

#### Review of Relevant Literature

No complete syllabus for the broad train of rehabilitation activities designed to develop communicative skills for a blind person is known. Several centers have developed excellent manuals and related outlines or teaching plans for their own use in specific instructional areas. Some of these are cited in the syllabus or included in the appendix of this report.

#### Brief Description of the Setting in which the Research was Done

The direction of the study and preparation of this report has been conducted in the setting of the Arkansas Enterprises for the Blind, a rehabilitation center for the blind, with a background of 21 years operation during which approximately 2000 blind persons have received services. This facility is located in Little Rock, Arkansas, the capital city of the state, a metropolitan area with a population of one quarter million.

<sup>3</sup>Sight Saving Review, Fall 1967. Volume XXXVII No. 3 page 133.

Services provided by the Arkansas Enterprises for the Blind are essentially personal adjustment and prevocational. The facility has had intimate relations with such vocational training as the Vending Stand Program throughout its history and more recently with the training of blind persons to become Taxpayer Service Representatives. Such relationship has provided sufficient experience for the Grantee Staff to appreciate the development process of personal adjustment and the need for communicative skills so essential to the sequential steps of vocational training and placement. Specifically, the facility has, from its beginning, provided instruction in communicative skills, but has within the past two years developed a more comprehensive service in this area of instruction. A full daily schedule is provided by five instructors under a full-time masters degree supervisor.

#### METHODOLOGY

##### Project Program and Professional Staff

This project did not involve providing services to disabled persons, but was concerned with investigating the training materials, methods of instruction and evaluation in the communicative skills of eight rehabilitation centers for the blind. The project staff was composed of two full-time persons, the project director and a secretary, one half-time field investigator and a part-time project co-director. Three of the persons had educational backgrounds on the masters graduate level and an experience background of 62 years rehabilitation work composed of 42 years of service to the blind and 20 years of general rehabilitation. Five other professional workers in the project facility were also involved in the development of the project. These persons were all college graduates and two were of graduate levels, one in special education and the other in teaching of the blind.

In addition to the staff of the project facility, communicative skills instructional staffs and administrative personnel of seven other centers serving the blind contributed information and materials for the project development.

In order to obtain information in a standard form, a survey covering seven areas of instruction in communicative skills and one related area was developed by the staff of the project facility. The survey inquired into the instructional areas of: I. Braille Usage II. Reading by Listening III. Reading by use of Residual Vision IV. Handwriting V. Typewriting VI. Oral Communication VII. Arithmetic and Related Skills of Computation and the related area of VIII, Equipment and Furniture. The extent of the survey inquiry may be indicated in volume by the 83 major concerns and 69 sub-concerns covering the seven areas of instruction and 17 concerns in the related area of equipment and furniture.

The survey was conducted by an on the site person-to-person inquiry in each of the eight centers. The person-to-person inquiry was made of the instructor responsible for the area of instruction being reported. The results of the survey were consolidated in tabular form, when practical, with an interpretation of the related comments in addition. The results of the report

were reviewed by an Advisory Committee in which were representatives of: a rehabilitation state agency, a sheltered workshop, a college department of special education, and members of the staff of the project. In addition, the results and implications were reviewed by instructors of three of the eight centers which participated in the survey.

#### Population and Sample

The sample with which this project was concerned represents a continuing current enrollment of trainees of approximately 250 to 300 persons drawn from the population distribution in eight or more states. The number of persons being served annually by these centers would approximate 700 to 800 persons.

Tables II and III in the Introduction presents the age and cultural approximation of the populations represented.

#### Dependent and Independent Variables

Age, education, cultural and social factors, vocational objectives, work experience, emotional stability and intellectual capacity are all variable factors involved in rehabilitation center services. All of these factors create the motivation forces that influence performance and achievement in the communicative skills. The influence of these factors are under continuous evaluation in a rehabilitation program, but no statistical evaluation of rehabilitation center performance has been planned or undertaken in this project. The principle of an individualized rehabilitation program does not set a common objective for persons of similar, or even exact abilities, but attempts through evaluation to provide a stimulating exercise calculated to permit progress within the threshold of frustration, with the expectation that both progress in skill and the threshold of frustration will change simultaneously or in close sequence to higher and more positive levels.

Inquiries were made to determine the extent to which educational and adult level factors were given consideration in selecting instructional materials and methods. The results of the survey indicate the extent these factors influenced center training goals and the extent to which these goals were attained by comparative educational achievement or vocational standards.



## CHAPTER II

### RESULTS

#### Limitations of this Inquiry

This report is the summation of a survey of eight areas which were felt to cover the chief communicative skills as they were found in eight rehabilitation centers for the blind.

The eight areas are: I. Braille Usage II. Reading by Listening III. Reading by the Use of Residual Vision IV. Handwriting V. Typewriting VI. Oral Communication VII. Arithmetic and Related Skills of Computation and VIII. Equipment and Furniture.

Since the purpose of this study is to help instructors in the communicative skills, each area has been presented as a section. The results, together with a three-day workshop, have provided the basis for a syllabus for each section.

#### The Representative Acceptance of the Areas of Inquiries

It seems important at the outset to evaluate the general acceptance of the areas of skills as found in the eight centers surveyed. All eight gave instruction in braille; reading by listening was instructed in seven of the centers; four centers offered instruction in reading by the use of residual vision; all eight offered instruction in handwriting and typewriting; seven centers offered instruction in oral communication. Six centers had programs designed to instruct blind persons in a skillful method of arithmetic and its related skills of computation; and no centers were fully equipped with books, or furniture, that had been specifically designed and styled to accommodate the individual problems faced by a blind person in learning the communicative skills mentioned in the survey. Agreement on subject matter offered would rate very closely on a weighted scale to 85 percent. Table I graphically presents the common agreement on skills of communication being offered in the eight rehabilitation centers for the blind and the related question of equipment.

**Table I. General Acceptance of Communicative Skills  
in Rehabilitation Centers as Surveyed**

Code:

X=Instruction Offered in the Skill  
O=No Formalized Instruction Offered  
E=Experimenting

| Skills                                           | Centers | A | B | C | D | E | F | G | H |
|--------------------------------------------------|---------|---|---|---|---|---|---|---|---|
| 1. Braille Usage                                 |         | X | X | X | X | X | X | X | X |
| 2. Reading by Listening                          |         | X | X | X | O | X | X | X | X |
| 3. Reading by Residual Vision                    |         | O | O | X | O | X | X | X | O |
| 4. Handwriting                                   |         | X | X | X | X | X | X | X | X |
| 5. Typewriting                                   |         | X | X | X | X | X | X | X | X |
| 6. Oral Communication                            |         | X | X | X | O | X | X | X | X |
| 7. Arithmetic & Skilled<br>Method of Computation |         | O | X | X | X | X | X | O | X |
| 8. Equipment & Furniture                         |         | X | X | X | X | X | X | X | E |

It should be observed that item "8" in Table I is not a skill but was thought by some to be related to the problems the blind face in learning braille usage in rehabilitation centers. One research paper has also inferred this factor as being an important one.<sup>1</sup> More complete treatment on this topic will be given later in this report about equipment and furniture.

#### Section I. Braille Usage

Braille is one of the three communicative skills in which all centers gave instruction. While all eight centers offered instruction in braille reading, only one center scheduled all trainees for this instruction. Scheduled instruction was done in all cases with a view to the person's potential to learn the code and the purpose for which it might be used. A minimum expectation was set for one to read his name, although only five centers expected everyone to read his own braille writing. This apparent discrepancy was based on the additional difficulty of writing braille rather than the difficulty of reading it. Only four centers expected trainees to read high school and college texts in braille but did expect trainees to become able to read the commonly used manuals of instruction.

All centers evaluated every trainee on his need for reading braille. Persons incapable of reading print of sight saving size with an aid were determined to be in need of braille reading, since it was felt to be the only method by which a blind person can read what he writes. One center did not, as a rule, schedule illiterate persons for braille reading instruction, although illiterate persons who showed learning potential and who were motivated, were exceptions to the rule.

An inquiry was made to determine the educational achievement levels on which instructional materials were prepared. Inquiries were limited to the following five arbitrary levels: (1) illiterate (2) elementary (3) junior high (4) high school and (5) high school graduates. Four centers stated that materials were prepared for the illiterate level; five centers had materials prepared for elementary, junior high, high school and high school graduate levels. Specific inquiry and samples indicated that those centers which instructed illiterate persons in reading braille improvised their own materials. The "Braille Series 1960," without modification, was felt by most centers to be limited in its use for instructing illiterates, and was basically elementary, junior high and high school material. One center had developed materials designed to meet all the educational levels of the survey.

Five centers stated they prepared their own materials for instructing illiterates and two additional ones made modifications of available materials, some by producing it, and some by varying the assignments of instruction. Only one center stated that the "Braille Series 1960" was used for all educational levels if they were all beginners in braille.

No center used an educational achievement test to classify all braille learners, but all centers gave weight to the educational background obtained from the personal history in making their evaluations. The rehabilitation centers surveyed were flexible in the goals they hoped to achieve by instruction in braille. The determination of realistic goals of achievement desired for trainees of various educational levels was based on the educational background learned from the performance during the evaluation period. Goals were modified as progress indicated, if the trainee desired.

For the five educational achievement levels used in the survey, inquiry was made regarding seven goals of braille reading achievement and one additional related factor that might influence the attainment of the goals. Table II reflects the flexibility of goals set and the effect of educational achievement upon the expectations indicated by the goals.



Table II. Goals of Reading Achievement for Each Educational Level

Code: X=Expected Goal      0=Not Expected      ?=Desirable if Able  
 Code symbols followed by a dash (-) and a number indicate the number of centers expecting such goals.  
 Note: Goal 5 Code: One or more numbers preceding last number refers to grade of braille.

| Goals                                   | Levels of Education |                         | Junior<br>3.High  | Senior<br>4.High | High School<br>5.Graduate |
|-----------------------------------------|---------------------|-------------------------|-------------------|------------------|---------------------------|
|                                         | 1.Illiterate        | 2.Elementary            |                   |                  |                           |
| 1.Alphabet                              | X-6<br>?-2          | X-6                     | X-8               | X-8              | X-8                       |
| 2.Number Signs                          | X-6<br>?-2          | X-8                     | X-8               | X-8              | X-8                       |
| 3.Capital Signs                         | X-2<br>?-3<br>0-3   | X-8                     | X-8               | X-8              | X-8                       |
| Punctuation Signs:<br>4.Which of        | X-2<br>?-2<br>0-4   | X-6<br>?-2              | X-7<br>?-1        | X-8              | X-8                       |
| 5.Grade of Braille                      | 0-7<br>1-2          | 1-3<br>1+2-2<br>1+2+8-3 | 1+2-7<br>1+2-1    | 1-3<br>X-8       | 1-3<br>X-8                |
| 6.Information                           | X-1<br>?-1<br>0-6   | X-4<br>0-4              | X-5<br>?-2<br>0-1 | X-5<br>0-3       | X-7<br>0-1                |
| 7.Pleasure                              | X-1<br>0-7          | X-2<br>0-6              | X-4<br>?-1<br>0-3 | X-5<br>0-3       | X-7<br>0-1                |
| Average Instructor<br>8.Load per Period | Range<br>2-4        | Range<br>2-4            | Range<br>2-4      | Range<br>2-4     | Range<br>2-4              |

From an analysis of Table II it is obvious that each center sets goals on as nearly an individualized basis as possible and with a marked consideration of the educational history of the learner, when performance is consistent with it.

Item '8' in Table II is not a goal of instruction, but is a factor that braille instructors felt to be quite important, although no effort was made in this study to demonstrate the effectiveness of this factor. All instructors felt that two students per period to be more ideal, but one center had found homogeneous grouping would permit as many as six to be assigned per period.

It was found that no other media, i.e., N. Y. Point, Moon Type or other innovations were used as a regular skill for reading instruction. One center used N. Y. Point as a means of introducing a student to the alphabet. The exclusion of the media mentioned here, however, does not exclude the

instruction given in optical aid usage, when it was available, nor in self-directed study in this media if a student was so motivated. The use of these media, however, was based on individual interest and the ability to use them.

#### Daily Periods of Instruction

Four centers offer daily instruction in braille reading for six periods, one for seven and one for eight. Two centers offered instruction in one to two periods per day. The length of daily instructional periods varied. One center offered four periods of 60 minutes and two periods of 45 minutes each; three centers used 50-minute periods; three used 45-minute periods, and one used 55 minute periods.

#### Techniques of Instruction

The techniques of instruction for reading braille varied some, but had much in common. All centers instructed in using both hands unless there was a restriction that prevented the use of both. Different techniques in the use of both hands were found. Some centers taught students to read with the dominant hand and use the less dominant hand as a line guide. Other centers taught the use of the dominant hand as the primary reading hand but also used the less dominant hand as a line guide and a supplemental, or assistant, reader as it located the new line. The supplemental reading hand, it was stated, could have several characters read on the new line while the dominant hand was completing the last few characters of the previous line. This method was felt to increase reading speed and it was also felt to be the only true two-hand reading technique, since both hands are interpreting braille instead of one serving as a line guide only. This technique of reading is stressed from the beginning of instruction. Either right or left hand dominance was permitted. Only one center gave instruction in reading braille by a combination of sight and touch. It was stressed by some that it was nearly impossible to teach touch reading of braille while a person retained enough sight to read it or any other media.

#### Other Influences on Learning Braille - Posture and Attitude

One center stressed the importance of precise posture. It stressed the precise angles of 30 degrees, at which the palms should be positioned in order to give the best tactile perception. Several centers emphasized bodily posture such as sitting squarely with the material, body erect, head up and both feet flat on the floor. Four centers felt that physiological factors such as tactile acuity, physical fatigue or the loss of a finger were the most important detractors of instructional techniques, while two felt psychological factors such as a negative attitude had a greater influence. One center felt staff competence determined the technique and one felt that the techniques of instruction depended upon the way the client functioned best. Comments by instructors indicated they gave as nearly a global assessment of the factors influencing learning as possible, and while certain factors were dominant considerations, none were overlooked.

Research, regarding the factors influencing braille learning, may give some additional helpful interpretation.<sup>2</sup>

### Book Design

Closely related to the majority opinion about the influence upon learning braille that physiological factors have is the survey inquiry about the design, size, and binding of braille instructional materials. The predominant size of instructional materials was 11x11 1/2 inch pages, although a few used books with pages 11x10 inches and 12x10 inches. In answer to the direct question about learning problems being related to the size of the braille page, four instructors felt there were none, one instructor felt it was of little or no consequence, but three felt they could identify problems of tactile interference and increased distortion of posture, due to the size of the page.

Books with large pages, as mentioned, with long lines and opening right and left were the designs most used. Instructors had practically no experience with braille materials arranged in two or more columns on the page. One instructor found that after an exercise in readiness for instruction, a manual in which the lines were no longer than six inches, that longer lines as customarily used were not as difficult to read and used them continually. One instructor felt that long lines were better, and based this conclusion on the fact that one changed lines less with the longer lines. Attention, however, was directed to the fact that most introductory materials were set up in short lines and also, that flash cards used for the same purpose were set up in short lines. More experience is needed before a firm conclusion can be drawn, but there are some strong convictions that large books and long lines create a fatigue problem for braille learners, especially persons who have short forearms.

Conclusions about the type of binding were much more settled. Bindings which permitted a book to lie flat when opened were predominantly favored. Tightly sewn bindings, which caused the pages to bulge when the book was open, were disliked, although a large amount of the instructional materials were of this pattern. There was little experience with top bindings, which opened from bottom to top, but those who had some experience felt they presented a problem by being difficult to keep on the table while reading. Some instructors reserved their judgment about this type of binding until they had tried them more. Instructors who felt that style and design of books were important also felt they had little choice but to use the less acceptable ones because they were the ones most readily available. One instructor felt that changes in design would be more expensive because of the extra paper required to place a two-column format on a page instead of the usual long line format.

### Evaluation of Braille Learning Readiness

Since all centers made evaluations of a trainee's need for braille, an inquiry was directed to what evaluation was made of tactile perception before beginning braille instruction. The most commonly used aid for evaluation



was the pegboard braille cell of various sizes and designs. Some centers used improvised models with wooden pegs one inch tall and one quarter inch in diameter. One center used wooden blocks, tennis balls and a muffin pan to develop a perception of the braille cell arrangement and one center indicated that instruction or evaluation in the pre-braille area was done only if difficulty developed after assignment. Additional repertoire of pre-braille development aids included: pages of raised plastic letters and other plastic imprints, dot patterns the trainee was required to describe, 100 tactile discrimination cards with two symbols each, which the trainee was required to sort into matched and unmatched symbols, concept formation cards introducing such letters as A, B, L, K, C, E, D, G and O in this order from which such words as "black," "back," and "ace" were made, also a roughness discrimination test was used when evidence of tactile deficit existed, as in cases of diabetes, stroke, and nerve or brain damage. The adjustable braille cell model, as a rule, was introduced before a book or manual was presented to the student. A new book, "Reading Readiness and Instruction," was used by the center which developed it for developing pre-braille perception and it will soon be available to all centers.

Five centers stated that they had a formally organized pre-braille instruction plan, and three did not. Although only five claimed to have formally organized plans, six centers stated that they gave instruction in posture and tactile exercises. Two centers included hand exercises, when indicated, in their plan for pre-braille instruction. Emphasis was also placed upon sequence of pre-braille instruction. The stage of training at which pre-braille instruction was given, varied. One center gave none until trouble with assignments indicated the need. The most common practice of timing was at the beginning of training, usually not later than the first two weeks. The duration of such instruction ranged from no set time to three weeks. Comments by all instructors with planned instruction indicated a discretionary use of the plan whereby greater or lesser amounts of instruction could be given, according to individual needs. Instructors felt that a carefully designed plan carried out sequentially was an excellent method of developing a positive attitude toward learning the code.

Of the eight centers surveyed, only three used reading achievement tests which gave results interpreted in a meaning of educational levels.<sup>4</sup> Practically all centers devised tests and evaluations of their own but had no interpretation in standards of educational levels. Comments by instructors about interpreting braille reading achievement in terms of educational levels or other standardized interpretations indicated that as yet most rehabilitation centers for the blind perceived their major service as one of personal adjustment and prevocational conditioning, rather than a preparation for either an advanced academic or vocational endeavor in which a certain standard of reading performance is required. At least three centers had rather clear goals of achievement before recommending a person for specific vocational objectives.

## Braille Writing

All centers placed emphasis upon instruction for writing braille. Every student instructed in reading braille was scheduled for instruction in writing braille. Instruction was given in the use of both major methods of individual braille production, i.e. slate and stylus and the brailier. One center pointed out that the Lavender Braillewriter was used in addition to the Perkins Brailier, but comments of all instructors indicate a preference for the Perkins Brailier.

## Goals of Writing

As in the area of braille reading instruction, no hard and fast goals for braille writing were set. Response to this inquiry, however, indicated certain common expectations of individuals, according to their educational backgrounds and their anticipated use of the code. Table III presents the goals and expectations of achievement according to the educational level.

Table III. Goals of Braille Writing

Code: ?=questionable but tried      0=not expected      X=offered or expected  
Code symbols followed by a dash (-) and a number indicate the number of centers so acting.

Note: Two or more numbers separated by + indicate the grade of braille

| Goals                          | Levels of Education    |                    | Junior<br>3.High  | Senior<br>4.High | High School<br>5.Graduate |
|--------------------------------|------------------------|--------------------|-------------------|------------------|---------------------------|
|                                | 1.Illiterate           | 2.Elementary       |                   |                  |                           |
| 1.Alphabet                     | ?-2<br>X-6             | 2-1<br>X-7         | X-8               | X-8              | X-8                       |
| 2.Number Signs                 | ?-2<br>X-6             | 0-1<br>X-7         | X-8               | X-8              | X-8                       |
| 3.Capital Signs                | ?-2<br>0-1<br>X-5      | ?-1<br>0-1<br>X-6  | X-8               | X-8              | X-8                       |
| Which Punctuation Signs        | ?-1<br>0-3<br>Period-5 | Commonly<br>Used-6 | All ?-1<br>All-7  | All-8            | All-8                     |
| Grades of<br>5.Braille         | 1-4<br>0-4             | 2-3<br>1-3<br>0-2  | 2-6<br>1-2        | 2-7<br>3-1       | 2-5<br>3-?-3              |
| Communication<br>6.With Others | 0-7<br>?-1             | ?-4<br>X-4         | X-5<br>0-1<br>?-2 | X-7<br>?-1       | X-7<br>?-1                |
| Professional<br>7.Formalist    | 0-8                    | 0-8                | 0-6<br>?-2        | X-5<br>0-3       | 0-2<br>X-6                |
| For Self<br>8.Communication    | Name + ?<br>Limited-8  | X-8                | 8                 | 8                | 8                         |

Discussion regarding the goals for writing braille indicated that the purposeful use of braille beyond self-communication in a proficient manner, using number signs, capitals and punctuation marks, was such an individually motivated achievement that the setting of goals was questionable. It was a practical consensus that it was fruitless in the time usually afforded in a rehabilitation center to expect an illiterate person to achieve much more than to write one's name, address, and phone number. However, there was an equally strong caution urged about assuming the cause of illiteracy. Instructors and supervisors felt that the lack of opportunity to learn the literate skills to be the major cause of illiteracy.

#### Problems of Writing Braille

The major problems in writing braille, as seen by the instructors, did differ slightly from the problems of reading braille. Instructors ranked psychological problems as the major one and organic and physiological problems secondary and of equal importance. More analytic replies and comments listed the factors of: (1) the complexity of the system (2) organic conditions such as brain damage and (3) denial of blindness, as the problems most frequently faced. Some felt that slate writing presented a psychological problem due to the reverse system of writing involved, whereas, such reversal was not involved and consequently was less a problem in writing with a brailier. However, there was a feeling that adequate introduction to the braille cell before attempting to either read or write would greatly reduce or eliminate the slate writing problem. There was not full accord on this idea.

Instructors followed a fairly close pattern in determining at what point of learning the braille code one should begin braille writing instruction. There seemed to be a unanimous opinion that it should be instructed concurrently with instruction in reading braille. Some set the beginning after one had learned the alphabet, others set certain points in the alphabet such as the letter "J", others the letter "P", one favored beginning after the student had learned the number signs, while one began as soon as the braille cell was understood.

#### Interpreting Progress in Learning Braille

The study raised the question of how trainees or students are informed of their achievement in learning braille. Only one center volunteered to say that tests were used and interpreted to the trainee by the instructor, and two centers assigned teacher-advisors and counselors who made interpretations from the daily or monthly records. The predominant method was a day-by-day review and interpretation of the student's work by the instructor. Some doubt was expressed by an instructor that tests would reveal the normal performance of a person, due to the pressure created by tests. Comments indicate that tests, especially tests of standardized types, are used only when evaluation for some specific vocational objective was considered, such as college entrance or enrollment in a specific vocation that required skilled braille usage.



The frequency with which a trainee's progress was discussed with him, varied. Daily and monthly intervals were the most commonly used, and equally used intervals. Although one center operated on a five-week reporting period, it orally interpreted the trainee's progress more frequently if it was felt to be necessary. The classroom and private office were designated as equally appropriate places for the discussion of progress, although every instructor reported that certain sensitive situations would be dealt with in private. One center regarded progress interpretation as a clinical function. Comments indicated that, as a center policy, there existed no hard and fast rule governing the nature of achievement determination or its interpretation, but permitted the instructors considerable discretion in these functions.

Braille usage, as instructed in the centers surveyed, is looked upon as a highly individualized skill for communication purposes instead of being a vehicle of professional use. Standardized measures of achievement in its use have not been widely used in rehabilitation centers and maximum flexibility of initiative in evaluating a client's potential, the methods of instruction and his achievement is left to the instructor. The prime importance of braille usage for the blind person who cannot read print was recognized by all instructors, and the flexibility with which instruction is conducted has been regarded by them as providing the maximum opportunity to learn. Braille usage, especially writing, was regarded as the only means yet devised by which a blind person can read what he has written.

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1 "Physiological and Psychological Factors Involved in the Acquisition and use of the Braille Skills by the Adventitiously Blind Adult," by Richard T. Ludden, unpublished: School of Education, Blind Rehabilitation Programs, Western Michigan University, Kalamazoo, Michigan 49001.

2(a) Ibid.

2(b) "Programmed Instruction in Braille" 1963 by Ashcraft and Henderson, Stanwix House, Inc., Pittsburgh, Pa.

3 "Reading Readiness" by Claudell Stocker, A.P.H.

4 (1) "Wide Range Vocabulary Tests" (2) California Achievement Tests" (3) "Standard Achievement Tests" (4) "Lower Level Reading Comprehension Tests" (5) "Lower Level Reading Diagnostic Test - 4th to 6th Grade" (6) "Upper Level Reading Diagnostic Test - 7th to 12th Grade and for College Freshmen"- A.P.H. (7) "Readers Digest Series 2 - 3 for 6th Grade Level".

## Section II: Reading by Listening

At the present time the major modalities of communicative skills used by blind persons depend upon the senses of touch and hearing. Braille is the modality of touch, and methods that produce auditory stimulation are the modalities of hearing. Good hearing is to listening, as good sense of touch is to reading. Both require an interpretation of the stimulation. If a person hears a sound but gets no meaning, it may be the fault of listening rather than hearing. How well one listens, or can be trained to listen, is an important factor in one's communicative ability. These modalities may be developed to proficiencies for sending communications, as well as receiving communications. Fortunately, the electronic developments of the present day are making these devices more available than ever before. The second major area of inquiry in the survey was concerned with the training extent, methods and evaluation of the modality of hearing and effective listening.

### What is Used

Of the eight centers surveyed, seven centers reported that every trainee was instructed in the use of the talking book machine and six centers reported that every trainee received instruction in the use of tape recorders. During training a much higher proportion of trainees used talking book than tape recorders. The current estimates of the percent of trainees who used talking book ranged from a low of 75 percent to 100 percent, with two centers confidently estimating that 100 percent of their trainees used this method during training. These estimates for the seven centers give a mean estimate of 92 percent of trainees who used the talking book. Current estimates of the percent of students who used tape recorders during training ranged from 10 percent to 100 percent, with a mean of 33 percent, or roughly one-third of their trainees. One center gave no instruction in either talking book or tape recorders. Those centers which did not offer every trainee instruction reported that those who received such training were selected because of a special need or interest in this modality of communicative skill. Frequently, it was an effort to supplement or substitute it for braille.

Inquiry was directed at which media was used most for reading pleasures. Talking book was reported by six centers to be used most, four centers felt that tape recorders were preferred when a choice was possible, but three centers felt that talking book was preferred. Comments by instructors indicated that students who were proficient in the use of cassette tape recorders and owned one, preferred tape recorders but certainly did not prefer to use the open reel style of tape recorders. Students felt they were too heavy and too difficult to use.

### How it is Used

An inquiry was directed to determine what practical use was made of tape recorders during training and afterward. During the training period at the centers it was found that very few trainees used this aid. Two

centers said tapes were used some for correspondence with their families and friends, but the only estimate of the extent of use indicated it to be about two percent. One center reported a rather infrequent use in some classes for note-taking. The reports indicated that more use was made of tape recorders after their training period ended than during training. While a majority of centers reported no knowledge of the extent to which former trainees made use of tape recordings, one center reported considerable use and one other gave estimates that indicated perhaps one percent more use was made afterward than during training. Some hope was expressed that the new first class postage rate given cassette tapes would stimulate more use than the slower mail provided by the free third class rate.

#### Listening Development

Inquiry was directed at determining what training, if any, was given to develop listening efficiency. Five centers reported instruction in this area. Description of the process ranged from periods of listening to tapes and records and holding group discussion, to conducting a memory course as part of mobility training. One center combined music appreciation with specific emphasis on listening. Another center used recordings, which emphasized by discussion, the importance of listening. Experimentation in one other center has progressed to a point at which materials for such training may become available to all centers. The experiment has demonstrated by pretesting and post testing that instruction can improve a trainee's listening ability.<sup>1</sup> Comments indicated that the development of listening skill was considered to be a by-product of such courses as oral communication, live lectures, recorded lectures, or specific readings of print material. It was felt by some instructors to be a very sensitive area of development, that of necessity, must begin with low level material and increase in difficulty (or challenge) as confidence developed.

Organized course materials for instructing reading by listening was used by five centers. Two centers had developed their own courses<sup>2</sup> and one used a course referred to as "Language Arts."<sup>3</sup> One center used the course only in their College Prep session.

#### Evaluating Effectiveness of Listening

The survey was directed to what tests, or measurements, were used to determine comprehension resulting from reading by listening. The majority of centers reported that no specific tests were made but three centers reported tests were used to determine listening comprehension, although each of the three used them in different ways. Some used these tests to determine vocational readiness and some to measure listening improvement. They were used to obtain equivalent reading levels by some. One test gave results interpreted in educational levels conforming closely to the survey inquiry levels.<sup>4</sup>



Records of progress in this area of communicative skill followed the individual center's pattern. Daily class notes were reported by two centers. Grades as commonly used in public schools were not used. Reports to counselors were given either on a monthly basis or on five or six-week periods. Some interpretation of the progress was given in terms of how many devices for listening the trainee had learned to use. One center set a goal of using three machines before being discharged from the area of training. These were the talking book and table model tape recorders of different makes, usually including one cassette type portable.

Interpretation of progress also followed the patterns previously mentioned. Two centers relied upon counselors or teacher-advisors, but the majority of centers relied upon the instructor to interpret the trainee's progress to him. One center's practice of expecting all trainees to make a progression of competent use through a series of one - two and three machines, each with some graduation of difficulty, was felt by the instructor to be a very self-interpreting progress report for the trainee.

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<sup>1</sup> "New Outlook" February 1968, p. 43; April 1968, p. 112.

<sup>2</sup> "Oral Communication Syllabus" Miss Fleming, Illinois Visually Handicapped Institute.

<sup>3</sup> "Language Arts" - used by Florida Rehabilitation Center, Instructor - Kathryn Rehyansky.

<sup>4</sup> "Brown Carlsen Listening Comprehension Tests"; "My Weekly Reader"; "Basic Essentials of Math" parts 1 and 2, Steck-Vaughn Co., P. O. Box 2028, Austin, Texas 78767.

### Section III: Reading by Use of Residual Vision

The first inquiry was concerned with what portion of a center's trainees depended upon residual vision for reading. Exact statistics were not available, but estimates ranged from 25 to 50 percent, with one-third being the most frequent estimate. Four centers reported no instruction to develop skill in reading with residual vision was given. Two centers which operated optical aid (or low vision clinics) reported that instruction in reading by this method was limited to the functions of the clinics, rather than being conducted in a regularly scheduled session, as braille and other communicative skills were instructed. All centers conducted activities and provided ink print materials in limited amounts, that would enable a person to develop skill in reading by use of residual vision. Such activities as social skills, playing games, and self-directed print reading periods afforded the opportunities. The four centers offering instruction by this method of reading included illiterate persons, as well as all persons in other educational levels in their schedules. Instruction for illiterates observed the limitations it imposed, and in some instances reports indicated that only one's name, address and telephone number was a feasible achievement objective. Also, persons with higher educational achievement, when motivated, needed little instruction but only encouragement and the opportunity to practice in order to develop skill.

A variety of aids for instructing reading by residual vision was used. The kinds of visual aids differed, according to individual need and the clinical assistance available for prescribing aids. Some centers used only hand magnifying glasses selected by the trainee, with lay assistance, and some had clinically prescribed aids. Materials of instruction used were: (1) dictionary print (2) newspaper print (3) sight saving print (4) felt pencil writing and (5) intensity lights. Eighteen point print was the predominant size of large print used, although some use was made of Gothic type one-half inch in size.<sup>1</sup> One center instructed reading numbers by using hand made numbers one and one-half inches in size.

#### Remedial Reading Instruction

Remedial reading for persons who did their reading by use of residual vision was not generally instructed. Five centers offered no instruction in remedial reading but three did. It is doubted that there is unanimity among instructors on the meaning of remedial reading. Only one center proposed to instruct illiterate persons in remedial reading. One center estimated that ten percent of their elementary, and 50 percent of their junior and senior high, and high school graduates were being instructed in remedial reading. One of the three centers which offered remedial reading received its referrals from schools and an agency serving children and adolescents. The other two centers scheduled trainees for remedial reading after an evaluation at the center indicated their need.

One of the three centers offering instruction in remedial reading by use of residual vision used a specially prepared course.<sup>2</sup> The other two centers described their process and techniques as: beginning with current reading level material and progressing informally to phonics, spelling, dictionary skills, vocabulary and sentence structure. One of the centers which disclaimed instruction in this area referred to their efforts made in braille instruction to build remedial exercises into that instruction, but did not attempt it in visual reading.

Records of progress in this area of instruction followed the daily class note and monthly report pattern previously described. No centers claimed to administer tests of achievement to measure progress in comprehension as a result of their remedial reading instruction.

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<sup>1</sup> Stanwix House, Inc., 3020 Chartiers Ave., Pittsburgh, Pa.

<sup>2</sup> "Remedial Reading Exercises" by Dr. Sam Kirk, Wichita, Kansas

#### Section IV: Handwriting Instruction

##### Extent of Offering and Kind

All eight centers surveyed offered instruction in handwriting. The cursive style of handwriting was instructed by all and four gave instruction in printing by handwriting. These were the only two methods offered. The cursive style was preferred but hand printing, usually with felt pens, was offered when the cursive pattern proved impractical for certain individuals.

##### Evaluation Techniques

Evaluation techniques to determine one's need for handwriting instruction varied widely, but all centers made an evaluation, even though some centers did not schedule all who could not write, for instruction. The predominant technique of evaluation required a person to write his name, address, and telephone number, if one had a telephone number. This exercise was used by four centers as an evaluation technique to determine need for instruction in handwriting. An additional technique used by some centers required a short biographical sketch and others dictated short passages, or sentences, as an evaluation exercise. Legibility was the standard by which need was determined and was also the foremost objective set for handwriting instruction.



### Aids to Handwriting Instruction

A variety of aids and sizes of print materials were used for instructing handwriting. Concepts of letter forms seemed to be one of the major problems, since every center referred to aids that presented these forms. One center used the raised letters found on the first pages of the Braille Series I, and also individual alphabet character forms in plastic to create an idea and develop kinesthetic knowledge of characters of the alphabet. The size of patterns ranged from three-eighth of an inch to two inches. Embossed script characters; raised characters on boards; shaped pipe cleaners; soft wire forms; drawing on the palm of hand; Sewell drawing boards; and ball point pen impression on soft impressionable plastic sheets were the principle aids used. Comments indicated that efforts at duplication of large print or block copy meant little as a handwriting style, if legibility was not obtained. It was also felt that size did not necessarily create legibility. Two manuals were most frequently mentioned.<sup>1</sup> Some techniques of sighted penmanship had been adopted for instructing the blind in handwriting. Four centers used some of the exercises such as the "ovals" of the Spencerian and Palmer methods. Experience indicated it would require about a year of training to use the muscular controls developed by the Spencerian, or Palmer methods and for that reason these techniques of developing handwriting were used for developing some kinesthetic concepts only. It was felt that a blind person could develop skill in penmanship, but it would have only limited use. Another center urged the trainee to use his own technique, but develop it by practice.

There are certain well known devices on the market, such as the Marks Script Guide and the Marks Signature Guide that are considered standard equipment. In addition to such standard equipment, the survey attempted to learn what improvisations, or innovations, instructors used for developing handwriting skills. The braille cell description was believed to work 99 times out of 100 as a guide to the formation of letters of the alphabet. The cell used with minus and plus numbers to indicate shapes of letters above and below the line was felt to be an excellent innovation by instructors who used it. Stringboard guides and cardboard guides were improvised by most centers and used in preference to all other aids by many trainees. It was felt that this area of instruction lent itself to the use of many materials such as: molding clay, pipe cleaners, solder wire, or other tactile substances. The catalogs of the American Foundation for the Blind and the American Printing House for the Blind have an impressive listing of tangible aids which are too numerous and too well known to list.

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<sup>1</sup> "Long Handwriting for the Blind" by Elizabeth Freund.

"Teaching the Blind Script Writing by the Marks Method", a manual, Marks Education Series No. 8, A.F.B.

## Section V: Typewriting Instruction

### Extent of Offering and Evaluation

Typing is one of the major communicative skills for blind persons, as evidenced by its being one of the three areas in which all eight centers gave instruction. While all eight centers offered instruction, four offered it to all trainees and four did not. Inquiry was directed to the evaluation process in selecting trainees for instruction in typewriting. All centers reported evaluations were made. The methods and duration of evaluations varied. They ranged from interviews to determine interest, to a period of three weeks actual use of the typewriter to determine a trainee's potential to benefit from training in this area of skill. Vocational objectives, personal interest and finger dexterity, as well as spelling ability, were factors of evaluation. Definite exercises were followed in several phases of progressive difficulty in some evaluations to assess the trainee's potential to achieve. These assessments were used as guides for expectations in setting goals of achievement.

Four centers, as a policy, did not enroll illiterates in typewriting and another center followed a flexible policy in regard to this level of educational achievement, and determined enrollment on the outcome of the evaluation. While three centers stated, as a policy, illiterates were enrolled in typewriting, comments indicated flexibility. A trainee's potential to benefit was considered in all cases, regardless of policy.

The range of expectations are quickly seen in Table IV as reflected in the goals set for persons with various educational backgrounds.

Table IV. Typewriting Goals for Each Educational Achievement Level  
Code: 0=not expected      ?=doubtful      X=expectation by a certain number  
Code symbols followed by a dash (-) and a number indicate the number of centers so acting.

| Goals              | Levels of Education |              | Junior<br>3.High | Senior<br>4.High | High School<br>5.Graduates |
|--------------------|---------------------|--------------|------------------|------------------|----------------------------|
|                    | 1.Illiterate        | 2.Elementary |                  |                  |                            |
| Personal           | 0-4                 | 0-1          |                  |                  |                            |
| 1.Correspondence   | ?-1<br>X-3          | X-7          | X-8              | X-8              | X-8                        |
| Business           | 0-7                 | 0-4<br>?-1   | 0-1              |                  |                            |
| 2.Correspondence   | ?-1                 | X-3          | X-7              | X-8              | X-8                        |
| Vocational Level   |                     | 0-7          | 0-6              | X-6              |                            |
| 3.General          | 0-8                 | ?-1          | X-1<br>?-1       | 0-1<br>?-1       | X-7<br>?-1                 |
| 40 w.p.m. 3 errors |                     |              | X-2              | 0-4              | 0-5                        |
| 4.on 5-minute test | 0-8                 | 0-8          | 0-6              | X-4              | X-3                        |
| Medical            |                     |              |                  | 0-4<br>?-1       | 0-4<br>?-1                 |
| 5.Transcription    | 0-8                 | 0-8          | 0-8              | X-3              | X-3                        |
|                    | 0-7                 | 0-6<br>?-1   | 0-4<br>X-3       | 0-4              | X-4                        |
| 6.Other            | X-1                 | X-1          | ?-1              | X-4              | 0-4                        |

Goal Number 6 represented various expectations, such as the development of coordination, finger dexterity and work tolerance. Such purposes of scheduling a person in an area, highlights the philosophy of personal therapy which pervades all rehabilitation center activity.

Some centers felt there should be a level of expectation between goals 1 and 2. The major comment indicated this to be something better than personal correspondence in which a person could communicate with a relative or friend notwithstanding poor spelling and typographical errors. This level of achievement in typewriting is a practical and self-imposed goal which is primarily set by the limitations of the trainee. It would be an impractical or inane goal if it were set for persons who would be writing themes or other educational requirements. At best achievement, no better than goal 1 might be used in making a vending stand report to a supervisor who could become acquainted with the personal inadequacies of the operator. Goal 1 represents an achievement of communication for personal use only, when a minimum of accuracy, good spelling, grammar and punctuation will not destroy the message. Goal 2 refers to personal business letters such as writing an order, or sending a brief message to a firm or landlord, i.e., "I ain't got my check and will send money then." Such writing carries the message and would be understood notwithstanding poor spelling, grammar or English.

Table IV reflects very little expectations of general vocational level performance below the high school level. Comments indicated the majority of the centers expected vocational level performance such as medical transcription, other stenographic transcription and professional writing to be developed elsewhere. As reflected in Table IV, goals 4 and 5, three centers held these expectations of persons with high school and high school graduate levels. Comments of instructors, however, indicated these expectations were limited to persons with such levels who exhibited marked interest and ability. One center set the goal of 40 words per minute in speed before a trainee would be recommended to a vocational school for stenographic or medical transcription training.

#### Manuals Used

An inquiry was made to determine what manuals were used to achieve the goals mentioned in Table IV. The most commonly used manual was "Touch Typing in Ten Lessons," by Ruth Ben'Ary, and the practice tapes. It was used by four centers. Three centers used their own manuals.<sup>1</sup> Almost all centers had developed special exercises of their own but not complete manuals. Other manuals were: "20th Century Typing in Four Volumes," by South-Western Publishing Co., 1960 (A.P.H.); "Modern Typing Practice," by Altholz; "One Hand Typing," by Nina Richardson; "Typing Simplified," 1952 by Leslie and Pepe, American Book Co., Dallas, Texas. The last mentioned publication is a small manual in print, but was felt by the instructor to be very helpful for instruction in a rehabilitation center. It contained introduction to the keyboard, practice exercises, drills and tests.



One center possessed recorded manuals designed for instructing partially sighted persons, but felt this material was not adaptable for rehabilitation center use. The problem of using such material had too many facets for effective training of beginners, as well as for some who had hearing problems and coordination problems. These would indicate limited use.

#### Evaluation of Typing Achievement

For vocational screening purposes, one center used and praised the ten-belt series medical transcription supplied by the Dictaphone Corporation. This center referred its candidates for this vocation to a special training agency, but the instructor felt these tapes gave enough introduction to this vocational field to give the student excellent guidance before making a final choice.

One point of interest in connection with the goals set, as indicated in Table IV, is the type of measurements used to determine progress toward the goal. Obviously, the validity of the use of any measurement should be its relationship to an objective. Consequently, speed tests would be of little help in reaching goals 1 and 2, but valuable to goals 3 and 4.

The most commonly used method of measuring progress was a comparison of samples of work. Daily work samples were retained as an accumulative individual record and from these one's progress in form, speed, spelling, capitalization, punctuation, paragraph and marginal performance could be factually presented. This form of measurement, in some instances, took into account the repeated errors. One center reported using recorded exercises that indicated dates or time lapses at which certain skills were expected to be achieved. Two centers used periodic speed tests for trainees whose goals justified this type of measurement. One center reported the use of the traditional ten minus scoring system for each mistake made on a five-minute test. Another center emphasized individual evaluation of work on the basis of the goal set.

For illiterate trainees' progress toward the goal of writing a legible letter, conveying a friendly message and a properly addressed envelope was easily made by reviewing the work with the trainee. The approach of the instructor in making this review was felt to be as important as the identification of the errors, and commendations for progress shown. This element of tactfulness and individual approach was felt to be very important at all educational levels, and with all goals.

The principal difference in measuring, or interpreting progress at the higher educational levels of the trainee was the evaluation of the level of grammar, composition, punctuation, spelling and letter form used. High school level trainees were expected to use high school standards, and their work was compared to text models of such levels. Professional writing was expected to conform to the patterns of technical vocabulary, perfection of

typing, spelling, composition and precise communication, which were compared to models, but not measured by tests commonly known as standardized.

Several methods of instruction were used. All centers used and relied heavily upon oral instruction, regardless of the level of educational achievement of the trainee. In a rehabilitation center for the blind the instruction is used, in practically all instances, as a double purpose activity, i.e. (1) foremost is the personal adjustment of the blind person, whether congenitally blind or adventitiously blind. This adjustment eventually develops as one gains confidence in his ability to do the necessary things of daily living which most sighted persons do for themselves, and which, in the cases of adventitious blindness, the person previously did for himself (2) secondly is the skill in this area, a communicative skill. Oral communications may be the only avenue for instructing a newly blinded person when he is first scheduled in typewriting, even though the person may be a college graduate. Assignment in typing is not considered by rehabilitation centers for the blind as an indication of a curriculum level, as it would be in a junior high school curriculum. Typewriting was regarded as a necessary adaptive skill for a blind person's use in written communication. Table V designates the instructional aids and methods used and at what educational levels they have been used.

Table V. Instructional Aid and Methods Used in Typewriting  
For Each Educational Level

Code: ?=probable, but used with caution      0=not used      X=used  
Code symbols followed by a dash (-) and a number indicate the number of centers so using.

| Aids & Methods<br>of Instruction | Levels of Education |                   |            |            |              |
|----------------------------------|---------------------|-------------------|------------|------------|--------------|
|                                  | 1. Illiterate       | 2. Elementary     | 3. High    | 4. High    | 5. Graduates |
| 1. Oral Only                     | 0-3<br>X-5          | 0-1<br>X-7        | 0-3<br>X-5 | 0-3<br>X-5 | 0-3<br>X-5   |
| Oral Plus<br>2. Braille Manuals  | 0-8                 | X-2<br>0-6        | 0-4<br>X-4 | 0-3<br>X-5 | 0-3<br>X-5   |
| Recorded<br>3. Exercises         | 0-8                 | X-2<br>0-6        | X-4<br>0-4 | X-5<br>0-3 | X-5<br>0-3   |
| Transcription<br>4. Equipment    | 0-8                 | ?-1<br>0-4<br>X-3 | X-8        | X-8        | X-8          |

Comments of all instructors indicate that either the exclusion or use of an aid and its method of instruction was used with discretion, regardless of the educational level of the trainee. The four aids and methods of instruction did represent levels of skill achievement in most instances. Consequently, a decline in the use of oral instruction is reflected in Table V in the higher educational levels as skill was developed in using other aids.

The distinction between recorded exercises and transcription equipment should be observed. Recorded exercises are used for instruction to develop skill in typewriting, whereas, transcription equipment is used for developing transcription skill with a typewriter.

Large print manuals were used as aids in the four upper levels of educational achievement for partially sighted persons who had enough sight to use them. It should be observed, also, that the limited use of braille manuals in the two highest levels of educational achievement may be due to the trainee's lack of competence in braille. Item 2 in Table 5 is a combination method of instruction and reflects the progress in the higher educational levels in learning braille. The use of transcription equipment in the elementary level was interpreted in comments by instructors to be done only on an individually appraised basis and with certain limited objectives in view.

#### Orientation to Typewriting

All instructors in typewriting gave rather detailed description of the orientation given a new trainee upon entering the typewriting area. The common goal was the use of any residual vision a person possessed. Methods of orientation varied some, accordingly. Orientation, as described, was expected to require more than one period. In some instances the trainee was expected to repeat the orientation tour he had previously made with the instructor before beginning to orient to the typewriter. The process proceeded in a rather sequential order, from room equipment, including furniture and supply storage, to specific equipment, such as the typewriter itself; carriage, keyboard, home or guide keys, marginal settings and release, tabular sets and paper insertions.

Improvised tactile aids were used to depict various length of lines produced by different marginal settings. Such tactile aids were raised lines, made of wood, mounted on plyboard the size of regular typewriting paper (8 1/2"x11"). In some cases brailled notations attached to each length of line gave the marginal setting, such as 15 - 85; or 20 - 18. Marginal settings were felt to be, by some, the most difficult mechanical typewriting adjustment to teach. Instructors emphasized the need for orientation to each different make of machine when changes were made. The proper technique of striking a typewriter key was felt to be a difficult concept to develop, but which also required continued drill and supervised instruction.



### Maintaining Records of Progress

Records of daily progress, which were consolidated into periodic reports to the rehabilitation counselors, were maintained by four centers. One gave only oral reports, one other gave semi-monthly reports, two gave six weeks reports, but four gave monthly reports compiled from daily records. Two centers used definite factors of evaluation when reporting such as: progress, quality, and attitude. One center rated each of these factors with letter ratings, A, B, C, D, and U, while the other described them as good, fair, poor and unsatisfactory. When letter grade ratings were used, "C" represented average and "U" represented unsatisfactory.

All instructors surveyed reported that a trainee's progress was interpreted to him daily and monthly by either the instructor, the designated teacher-advisor, or the rehabilitation counselor. The methods of interpretation varied, according to the instructor's estimate of the trainee's personality, as seen by the instructor, or according to center policy.

### Section VI: Oral Communication Training

#### Extent Offered

Seven centers reported offering training in oral communication and one gave none. Three centers operated daily schedules of training and four operated on a weekly schedule. One provided two days a week, one three days, one four days and varied their schedule as needed by the group. The length of the instructional periods varied from a minimum of 45 minutes to a maximum of 60 minutes, with 45 and 50-minute periods being the most commonly used.

#### How Trainees were Selected for this Area of Instruction

Different methods of selecting trainees for this area of instruction were used. One center professed regularly to have used two criteria for selection: (1) persons possessing mannerisms in speech and posture, and (2) persons who expressed specific interest in developing skill in oral communications. Other centers seemed to follow closely the above pattern as they made an evaluation of the trainee by the instructor before scheduling the candidate for instruction. Two centers used two methods slightly different in making selections: (1) accepting referral made by a therapist outside the center, and (2) by center staff evaluation when obvious problems of diction were observed.

Inquiry was made regarding the goals set for each of the five educational levels used in the survey. Table VI gives the goals and the number of centers reflecting such expectations.

Table VI. Goals in Oral Communication Set for Each Educational Achievement Level

Code: 0=not expected X=expected  
Code symbols followed by a dash (-) and number indicate the number of centers so acting.

| Goals                       | Levels of Education |                   | Junior<br>3.High  | Senior<br>4.High  | High School<br>5.Graduates |
|-----------------------------|---------------------|-------------------|-------------------|-------------------|----------------------------|
|                             | 1.Illiterate        | 2.Elementary      |                   |                   |                            |
| 1.Public Speaking           | X-2<br>0-6          | X-2<br>0-6        | X-2<br>0-6        | X-3<br>0-5        | X-5<br>0-3                 |
| Personal<br>2.Taped Letters | X-2<br>0-6          | X-2<br>0-6        | X-2<br>0-6        | X-2<br>0-6        | X-2<br>0-6                 |
| Dictation<br>3.by Tape      | X-1<br>0-7          | X-3<br>?-1<br>0-4 | X-4<br>?-1<br>0-3 | X-3<br>?-1<br>0-3 | X-3<br>?-2<br>0-3          |
| Composing<br>4.on Tape      | X-2<br>0-6          | X-2<br>0-6        | X-2<br>0-6        | X-3<br>0-5        | X-3<br>0-5                 |
| Remedial<br>5.Speech        | X-6<br>?-1<br>0-1   | X-5<br>?-1<br>0-2 | X-5<br>?-1<br>0-2 | X-5<br>?-1<br>0-2 | X-5<br>?-1<br>0-2          |

Comments by instructors shed some light on some of the expectations as reflected in certain goals. In centers not employing a speech therapist, socially acceptable speech such as better vocabulary, better grammar and less hesitation or repetition were indicated to be the goals of remedial speech rather than the correction of speech defects growing out of organic or pathological defects.

#### Equipment and Aids of Instruction

Aids and equipment used for oral communication instruction were those commonly used by blind persons in other ways. The major differences in their use in oral communication were: (1) the direction, or purpose, given to their use, and (2) their use under an instructor. The stock of aids and equipment were tape recorders, sound scribes, dictating equipment, talking books, microphones, language master, telephone, reading materials, tapes and disc records, and some long playing musical records.

No center reported the use of unusual equipment, that is, something expensively made or specifically designed, but some centers had rooms with storage space and equipment arranged so it could be used without delay in getting it together.

The qualifications of instructors varied from a person with no college education to some with a bachelor level in physical education, English and speech therapy. The most frequent major study was English, with next most frequent, a speech major or persons experienced in the field of speech instruction. Qualifications that were almost always mentioned in comments were such as: (1) a person with some interest in this work or experience in work with the blind and some ideas about how to go about such instruction. One center reported outstanding work by a young ex-armed services person with only a tenth grade education, but who had excellent technical knowledge of the devices used and a good interpersonal relationship quality. Comments indicated that speech therapists were unavailable to most centers.

#### Presumptions of Need for more than Verbal Expression Verified

The survey presumed the existence of certain common problems of blind persons in oral communication and made direct inquiry regarding the instruction directed to them. These problems were: (1) facial recognition in person-to-person conversation (2) facial recognition of audiences addressed (3) facial language (4) voice modulation. Only five centers reported dealing with these specific problems. The problem was felt to be one of long standing habituation or conditioning that is more frequently found in congenital blind and less frequently in the adventitious blind. Instructors who were congenital and those who were adventitious blind persons made the same assumptions and felt that instruction approaches must be made on a conscious problem level. The consensus of instructors indicated that recognition of the problem was usually accomplished in open discussion in the instructional situation. The individuals needing instruction usually recognized the existence of these behavior patterns, once they were mentioned.

In group instructional settings, the differences in voice qualities created by the posture of the head and the direction one faced when speaking were easily demonstrated. Exercises in (1) looking toward a person and speaking and looking away from a person, dropping the chin on the chest, even when facing one being addressed (2) circular arrangements of the group in which a person sitting in the center is expected to directly face the person speaking from the circle, and (3) dialogue between persons in telling jokes or other oral, humorous verbal exchanges that created smiles and laughter were all used. Instructors felt the same techniques of individual face-to-face conversation and/or dialogue could be used to develop facial recognition when addressing an audience. The major difference emphasized between talking to one person or a small group and addressing a larger audience was the modulation of the volume of voice to accommodate the size of the audience. Instruction and practice in speaking situations in variously sized rooms helped persons to develop some awareness of the volume of voice needed.

#### Handicapping Body Language; An Oral Communication Target

Habitual, purposeless movements of the body, or parts of the body, frequently described as mannerisms of the blind, notably in the congenital



blind, is a handicapping behavior to which training in the communicative skills directs attention and instruction, if such can be done. The instructors in six centers reported this behavior to be one toward which attention was directed in oral communication training. One center reported that this behavior was dealt with by the mobility instructors and for that reason offered no other instruction in oral communication. Instructors in the communicative skills area felt the problem to be one which required consistent and concerted staff reinforcement of the formal instruction to make it effective. It is different from the development of skills, in that it is unconditioning. It appeared to them, of whom inquiry was made, to be a tension relief mechanism, practiced without a conscious awareness of it until it is brought to the person's attention by an observer. The need for observation and its subsequent reminder emphasized the need for some sighted staff members, although persons without sight were successfully conducting formal instruction in this area. The technique for modifying or correcting this behavior was stated to be: (1) the creation of an awareness of the behavior and (2) an understanding and acceptance of a reminding signal on the part of the trainee. It was a consensus of all instructors that nothing could be accomplished without the voluntary second step. The creation of the awareness of the behavior may be done in different ways. Group discussion of the handicaps the blind person may experience, a personal interview with a counselor or other person who may, without offense, interpret one's behavior to him, or the interpretation of normal, socially acceptable patterns of the presentation of oneself, are all methods by which one may be made aware of a distracting behavior commonly known as a mannerism.

Some curiosity may be stimulated with regard to the inclusion of mannerisms in a study of communicative skills. Its inclusion is basically due to its close relationship to the import of one's bearing, stance, or posture when speaking to others. Also, the meaning conveyed to others by observation; whether it creates a favorable impression or an aversion is a communication more powerful than verbal communication. When it creates an aversion in others, it is far more devastating to the social acceptance so fervently desired by all people and certainly no less essential for a blind person.

The gentle tap on the shoulder, when one has agreed to this type of reminder, is the simple communicative technique most commonly used to help a person break the pattern of behavior, when the handicapped person has accepted the need.

#### Total Staff Involvement

Centers offering training in oral communication involved their staff by providing that the selection of trainees might be on a staff-wide basis. The one center which required its instructor to be a qualified speech therapist also supplemented this instructor's selection by staff referral and individual trainee request. Referrals for tone and

voice training were chosen on the basis of individual need as deviations from the acceptable patterns of speech were observed by staff members. Extremes of either very low or very loud speech were taken as cues of the need of tone and voice instruction. It was again stated by all reporting instructors that the individual's interest was a factor considered in selection of trainees for such instruction. The enlistment of the trainee's interest sometimes required counseling to help develop the courage to accept instruction, but more frequently it did not.

The methods of training in tonal and voice qualities were conducted in class sessions, or in periods of scheduled training, whichever designation was given by centers to their training activity. As previously mentioned in the discussion of aids used, the materials of instruction are recordings of tapes, disc records, and transcription belts ordinarily used for dictation. Lecturers who are known for their quality of good speech are used both for demonstration and guidance when they are available. Recordings are used in several ways. Recordings that provide an opportunity for identifying tone qualities are used in some instances. These selections were of instrumental as well as vocal and speech composition.

#### Stimulative Materials of Instruction

Some of the musical selections mentioned were: (1) Sleigh Ride, by Lee Anderson (2) Prairie Night (3) Celebration Dance (4) Market Place (5) On the Trail (6) I Need Your Love, by John Gary (7) Oh My Darling (8) Monte Carlo (9) Once Upon a Time (10) When Tears Come Down. Musical selections were used, especially, to show range of tone, discuss breathing techniques and stimulate appreciation of imagery in music and sound. Other instructional materials were recordings of trainees' voices and play backs. Group discussion of voice qualities in terms of pleasantness, freedom from nasal tones, or the pitch and color of tone were conducted under the guidance of the instructor. In some instances the training sessions were conducted on the pattern of the "Toastmaster Clubs." Specific distracting speech habits, i.e., "ah's," "well-ah's," and superfluous repetitions were identified as critical factors before one speaks and were carefully observed by the group and the appointed critic for discussion afterward. Sessions conducted where emphasis is on development and done in low key were reported to create an "esprit de corps" that stimulated timid persons to participate. Efforts were made to obtain recordings of trainees' voices as nearly true to pattern as possible. Regardless of some distortion in the recordings, it was felt by instructors that the distracting patterns were well recognized and accepted. Almost always the first response to one's own voice was, "Uh! - is that me?" and from there on the "ice was broken."

#### Concept Formations Involved

The survey attempted to identify the conceptual problems encountered by instructors in oral communication instruction. In making the inquiry, an effort was made to elicit the response with as little structure as possible, by mentioning two examples such as: (1) facing persons (2) posture. Instructors readily mentioned the lack of conception of

such terms as "turn left," "turn right," "turn around," "awkward," "head down," "head up," "shoulders level," "squarely," "one yard or one foot," "twelve inches," "how sighted persons view blindness," social graces such as "holding a coat for a lady," "opening a car door or any door for a lady," "shoulders," "standing erect," and "ungrammatical speech." It was felt by instructors and supervisors that the concepts were so essential to the acceptance of blind persons by the sighted population, that little could be achieved in rehabilitation if they were not developed.

#### Telephone Usage

In view of the wide usage of telephones in communication, an inquiry was made regarding the extent and kind of instruction given in its use. All centers reported instruction was given. The one and four-finger methods of dialing were used and varied, according to individual difficulties with each. Evaluations were made by all centers and when it was determined that a trainee possessed a dependable system, no effort was made to change his pattern unless the trainee preferred to change. Age was the principal factor reported in choosing a system. Older persons seemed to grasp the one-finger system more readily, although it was felt to be less proficient.

Instruction in telephone etiquette, use of pay stations, and placing collect calls was given in five centers. Four centers instructed in distance dialing, two in using paging system, and three in braille switchboard operation. Telephone etiquette instruction made use of the telephone company's public relations demonstrations and discussions on the use of telephones. Some centers reinforced that instruction by periods of assignment to telephone answering duty in the evening time. Role play was another method by which instruction was reinforced. The type of telephone equipment usually consisted of the dial telephone and the touch tone system.

Information was given during instructional periods regarding the all digit numbers and alphabetical prefix systems. Instruction in practical use was of necessity, limited to the style of equipment currently in use. In one instance, telephone instruction was done in the personal management area instead of the communicative skills area.

#### Evaluation of Progress and Reporting it

The method, or process, of evaluating a trainee's progress in oral communication and how it was interpreted to the trainee was inquired about. One center applied the same system of evaluation in this area as that used in all other areas of training. Daily reports and class notes were used as supporting material for reporting to rehabilitation counselors. By those centers using them, the three factors, (1) attitude (2) progress, and (3) quality, were rated by letter grades of A, B, C, D, and U. Some centers used the final five or ten minutes of the daily period for class discussion and self-criticism. Instructors reported



the need for close supervision of class criticism was used in order to protect one who was felt to be too sensitive at the moment to accept group criticism. In these instances interpretation of progress was given in private by the instructor or teacher-advisor. Evaluations were interpreted in relationship to the declared goals of the individual trainee. If specific self-directed goals were not set, progress was interpreted in as meaningful manner as possible in the context of socially accepted behavior. It was felt that persons from low cultural backgrounds, low educational achievement, including illiterate persons, could develop listening and speaking skills to an appropriate level, whether or not such persons ever learned to read and write.

All comments of instructors, supervisors and center administrators added up to assessing the goal of oral communication to be that of enabling the blind person to make a comfortable and acceptable presentation of himself. It was felt to be one of the most essential skills for a blind person, since the behavior and performances involved in this area so frequently set the first impressions of the person.

As previously stated, reports are indirectly related to processes of instruction but just as accounting systems frequently modify business processes, so may such effects develop from reporting techniques, although such may not be the case in rehabilitation centers serving blind persons.

An additional and final inquiry was made in the survey, which is also indirectly related to instruction and pertained to the method of inter-staff communication for blind staff members. The inquiry was, "what method of interstaff communication is used for blind staff members?."

One center reported that this was achieved by staff conferences and through typed memos from the principal's office. Another center used three methods, e.g., (1) braille bulletins produced on an IBM braille typewriter for blind staff members (2) oral communication and (3) ink print memos, which were sometimes read to blind staff members but in the main used for sighted members. Two other centers used some braille memos and one other used tapes as a supplement to oral communication. Predominantly, oral communication in the form of announcements was used and supplemented by ink print or typed announcements, read to blind staff members by either secretaries or other sighted staff members.

As a factor of reinforcement of instruction, the recent action of a school for the blind seems significant to the efforts of rehabilitation centers in the communicative skills. This school adopted the policy that no regular tests or examinations would be given orally. The policy requires that all regular tests shall be given in the reading media used by the class, i.e. braille copies for the use of students who must rely upon braille, and large print copies for those students capable of using the available large print. The school also adopted the policy of requiring students who had attained a mid-elementary level to sign their

names to all papers turned in for grading. Feedback indicates a solid reinforcement of the teaching in these media of communicative skill.<sup>1</sup> Rehabilitation centers probably face more limitations of opportunity to use such reinforcement of instruction, but the experience of this school suggests that opportunities for such support may be at hand.

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<sup>1</sup> Oral Report, Arkansas School for the Blind - J. M. Woolly

#### Section VII: Arithmetic, and Related Skills of Computation

This section of inquiry was opened with the question, "Do you have a program designed to instruct a blind person in a skillful method of math usage and computation?" The intent of the inquiry was to discover what was being done in an organized and systematic instructional schedule in this area of training, and concerned with two factors: (1) a trainees knowledge of arithmetic and (2) a proficient method of using this knowledge without sight. Six centers reported programs of instruction which they felt to be within the intent of the inquiry and two centers felt their work in this area was not within the intent of the inquiry.

The latter two centers, however, reported what they did, which indicated that this skill was given some attention. One of these centers reported that while it was not instructed in the communicative skills area, an estimate of one's math ability was determined from his skill in making change during the evaluation period for vending stand training, in which all trainees were scheduled. Math knowledge needed for the purpose of vending stand operation was taught by the vending stand training program. The other center reported that assistance was given to persons capable of working with the Taylor Slate, by providing instructional materials which could be used independently.<sup>1</sup>

A wide variety of aids were used in the area of math and its computation. The aids were: (1) A.F.B. slide rule (2) magnetic board (3) cubarithm slate (4) braille calculator (5) Cranmer abacus (6) Brazilian abacus (7) graph slate (8) compass (9) tracing wheel (10) inverted dot and stylus (11) braille protractors (12) geometroid A.P.H. (13) large type (14) brailler (15) regular slate and stylus (16) felt writers (17) Taylor slate and (18) pencil and paper. Most centers mentioned only a few aids but one center listed 14 aids used in their instruction. The extent of instruction was usually limited to the four fundamental processes, (addition, multiplication, division, subtraction, fractions, and percentage). It was found that of the four fundamentals, addition and subtraction constitute 84 percent of math usage by non-professional persons. Percentage was instructed in relation to its value in determining profit. Some centers, however, in their instruction of abacus, covered such processes of decimals and extraction of square root.

The media of communicative skills in which instruction of numerals was conducted have been, to some extent, indicated by the listening of aids used. Aids, however, were supplemented by instruction given through the media of oral, braille and large print or script writing. The media used, of necessity, was limited to that which the individual could use without frustrating the learning process. Comments of instructors indicated a readiness to use as many of the media of communicative skills as practical.

The goals set for math instruction in each of the educational levels, as reflected in Table VII, may help to clarify the objectives of such instruction as they were seen in the rehabilitation centers surveyed.

Table VII: Goals Set for Developing Skills in Math Usage  
for Each Educational Level

Code: X=expected      ?=questionable expectation      0=not expected  
Code symbols followed by a dash (-) and a number indicate the number of centers so acting.

| Goals                           | Levels of Education |              | Junior<br>3.High | Senior<br>4.High | High School<br>5.Graduates |
|---------------------------------|---------------------|--------------|------------------|------------------|----------------------------|
|                                 | 1.Illiterate        | 2.Elementary |                  |                  |                            |
| 1.Making Change                 | X-4                 |              |                  |                  |                            |
|                                 | ?-2                 | X-6          | X-6              | X-6              | X-6                        |
|                                 | 0-2                 | 0-2          | 0-2              | 0-2              | 0-2                        |
| Four<br>2.Fundamentals          | X-2                 |              |                  |                  |                            |
|                                 | ?-4                 | X-6          | X-6              | X-6              | X-6                        |
|                                 | 0-2                 | 0-2          | 0-2              | 0-2              | 0-2                        |
| 3.Using Abacus                  | X-1                 |              | X-5              |                  |                            |
|                                 | ?-1                 | X-3          | ?-1              | X-6              | X-6                        |
|                                 | 0-6                 | 0-5          | 0-2              | 0-2              | X-2                        |
| Cubarithm<br>4.Arithmetic Slate |                     |              | X-3              | X-3              | X-3                        |
|                                 |                     | X-3          | ?-1              | ?-1              | ?-1                        |
|                                 | 0-8                 | 0-5          | 0-4              | 0-4              | 0-4                        |
| Mental<br>5.Arithmetic          | X-3                 | X-5          | X-5              | X-5              | X-5                        |
|                                 | 0-5                 | 0-3          | 0-3              | 0-3              | 0-3                        |
|                                 |                     |              |                  |                  | X-1                        |
| Circular<br>6.Slide Rule        |                     |              |                  |                  | ?-1                        |
|                                 | 0-8                 | 0-8          | 0-8              | 0-8              | 0-6                        |
|                                 |                     |              |                  |                  |                            |
| Other<br>7.Math Skills          | X-2                 | X-1          | X-2              | X-3              | X-3                        |
|                                 | 0-6                 | 0-7          | 0-6              | 0-5              | 0-5                        |
|                                 |                     |              |                  |                  |                            |



Comments by instructors further interpreted the limitations of goals shown in Table VII. As an example, the goal of learning the four fundamentals is expected of illiterates by two centers, with a questionable expectation of this achievement held by four centers, and two centers not expecting it, since it is not their plan to offer such instruction. Goals are set with the evaluation of the trainee's potential and need in mind. The goals are flexible and if greater achievement seems feasible, the trainee may move upward as high as his motivation, capacity, and time of training will permit. Some centers felt that addition and subtraction was as high a goal, if that were possible, as one could expect from a person of the illiterate level within the length of time usually afforded for center training. All centers felt that goals of instruction in math were of necessity, limited by time, trainee capacity and sufficiently felt need to motivate one to do unlimited study. Rehabilitation need, rather than academic goals were felt to be reasonable for all levels of educational background.

Other goals of skills in this area, such as: linear and metric measures, avoirdupois weight, adding machine, and calculator use were set by only two centers. Use of braille calculator was instructed in only one center, and this was limited to persons of high school and above, educational levels. It was also felt that the Taylor slate instruction was impractical for the elementary levels.

The manuals, or syllabus of instruction used in math varied widely. All centers used some materials, if nothing more than notes of their own production. These were used primarily for persons of the illiterate level. Comments indicated this necessity, since materials to meet the level of some trainees are not on the market. For persons with higher educational background, more materials for instruction were available.

Manuals in use were: (1) "Arithmetic We Need Series," Grades 3 - 8, (1956 Nemeth Code) Buswell, Ginn, Brownell and Souble, A.P.H. (6 manuals) (2) "Individualized Math" (3) "The Nemeth Code of Braille Mathematical and Scientific Notation, 1965," braille and ink print editions, A.P.H. (H.E.W.) by Dr. Abraham Nemeth (4) "Modern Algebra," by Dalcioni, Berman and Freidlick (5) "Algebra," Book I-II, by Welchons and Kinchenberger, A.P.H. (Ginn) - (available in large type print, also) A.P.H. (6) "Modern Algebra and Trigonometry" (structure and method) by Dalcioni et. al. (Haughton) A.P.H. Book I, 1962; Book II, 1963. (7) "Using the Cranmer Abacus for the Blind" (1956 Nemeth Code) Gissoni 1962 A.P.H. 6-5010 (8) "The Japanese Abacus, Its Use and Theory," by Takashi Kojima (9) "Kansas Manual of Instruction" (10) "The Taylor Code."

Comments by instructors using the Cranmer abacus indicated they made some variations in the sequence of instruction and also some change in terminology of instruction. Instructors, in some instances, modified the sequence from addition and multiplication to the sequence of addition and subtraction. Points of reference were also modified from an identification of columns as A, B, C, D, E, F, etc. to a right and left side of a point, or right and left side of the abacus.

Instructors and supervisors of instructional services felt strongly that the abacus was the nearest restoration to the pencil and paper tool in math, as used by sighted persons. It was felt that the newly blinded person has suffered a loss in his ability to perform arithmetic calculations and that he should be offered a method of restoring this ability.

It may be impractical to think that a knowledge of arithmetic, even the essential four fundamentals, can be developed in the time allotted for rehabilitation center training, but for those who have a knowledge, the goal of restoring to the blind person a method of normal arithmetic use can be a practical goal.

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<sup>1</sup> "The Nemeth Code of Braille Mathematical and Scientific Notation, 1965" by Dr. Abraham Nemeth, A.P.H. (H.E.W.) 1. Adult

#### Section VIII: Equipment and Furniture

##### A Felt Concern, Related to Learning

This section of the study was included, since it has some support in research<sup>1</sup> previously mentioned. Suitable supplies, equipment and furniture have always been regarded as an aid to learning. Instructors and supervisors in rehabilitation centers also express concern about the problems faced by blind adult learners in a rehabilitation setting, which are peculiar problems because of the unique modality of sensory stimulation the blind persons must use. Probably the most pronounced area of learning difficulty in the communication skills is that of braille. It is felt that adult learners in rehabilitation centers face greater psychological problems in braille than children learners in schools for the blind. Braille seems to have a symbolic meaning to the adult center trainee, which creates a problem that is also magnified by the physical fatigue. The concern about furniture has received attention for many years in the adjustment normally made in stenographic furniture used for training sighted stenographers and typists. Braille learners in rehabilitation centers may need more ameliorating devices to encourage their efforts than persons who have, from early childhood, developed an acceptance and ease of using braille that may seldom, if ever, be attained by the adult, who must modify well set patterns of behavior.

##### Limitation of this Specific Inquiry

Inquiry was directed to three types of furniture or equipment one might expect to find used in braille instructional areas e.g., tables, chairs, and lapboards. Two characteristics of each of these pieces of equipment were asked about the heights and adjustability of each.

Tables in use ranged from 29 inches to 30 inches in height and the predominant height was 30 inches non-adjustable. Chairs were stock issue

ranging from 16 1/4 inches to 19 inches in height with 16 1/4 inches being the predominant height used, and non-adjustable. Lapboards varied in length and width but only one center used an adjustable lapboard and none used tables with slanted tops.

One center had been able to compare the proficiency in braille learning based upon the difference in furniture styles. Firm conclusions have not been reached by this center and more experimentation will be necessary. However, during this project there has been some re-examination of the idea by persons who had given it no thought previously. Conclusions drawn from these experiences suggest that shorter persons found lower level chairs and tables more comfortable. Persons with arm motion restrictions preferred tables that could be adjusted to lower levels. Some cardiac persons raised questions about the extra strain they felt on both shoulders and arms when they lifted their arms to the height necessary to read braille. Spastic persons also found that tables which could be lowered to their preferred level were more comfortable. It was felt that some persons who had difficulty with braille had eventually accepted it on the basis that adjustable furniture had relieved some of their discomfort. These were observations that challenged instructors in this center. These instructors felt there is a physical factor of accommodation involved for the braille learner similar to that involved in the use of adjustable table and chair heights for the typewriting trainee. The experiment has suggested the need for easily adjustable furniture in order for each trainee to fit it to his individual comfort without the necessity of tools or the assistance of the instructor, beyond an initial orientation. One center raised the question of the engineering of such equipment in furniture as being something used in hospital table heights for in-bed patients, and asked about making the same readily adjustable mechanisms available for the accommodation of braille learners. The concern felt by instructors in the experimenting center was not shared by all instructors in the eight centers, although they did express some curiosity.

#### Book Styles and Related Problems

More common conviction was found about the effect style and design of the book binding had upon braille learning. In reply to the question, "have you discovered any problems in learning braille that you would attribute to the design (or binding style) of the book," five centers answered "yes." Two centers modified their replies of "no" by describing the types of bindings they preferred and also the problems they had found with certain styles of binding, namely with the tightly rivited and sewn bindings. Only one center stated that design or style of binding had no bearing on the matter of learning braille.

Those centers replying in the affirmative mentioned such factors as organic problems, fatigue, slowness of reading, numbness of fingers, movement of hands in parallel or circular motions, parallel hand and arm movement, postural strain, length of the braille line, the kind of paper and the kind of binding. Some of these factors are physiological and some are psychological in origin.



It was said by some, and intimated by other instructors, that the design of books and quality of paper had been determined to accommodate the visual patterns of reading and the economy of production than to accommodate the modality of touch and the physiological function of the adult blind learner. There were inferences that the design of both books and furniture needed to be examined with a view to eliminating undesirable stimuli that tend to inhibit learning experiences.

#### Types of Books and Furniture Used

Some centers had adjustable typewriting tables that could be adjusted easily for each individual without difficulty, but no center had purchased such tables adaptable for braille instruction. Two centers had made modifications in the furniture purchased from stock supplies and one of them had built in their shop, an experimental pattern of desk.<sup>2</sup>

Comments made by instructors regarding both book and equipment indicated these articles had been rather uncritically accepted because they were available either on quota, as in the case of books, or from stocks, as listed in catalogs or local office supply sources. Perhaps, consensus on designs of both books and furniture has not developed sufficiently at this point to create a supply demand. No instructors initiated suggestions regarding other modifications than those discussed. One instructor who felt he was relatively a new comer to this field of work intimated that an interview two years hence might be productive of new ideas.

#### Reporting Progress to Rehabilitation Counselors

While this next specific inquiry was related to instruction indirectly, it was felt to be so closely related to the process that it should be looked into. Previous inquiries have been concerned more with the method and process of interpreting progress to the trainee, but this inquiry is specifically concerned with the reporting and interpretation of the trainee's progress to his rehabilitation counselor. The inquiry asked, "what method is used in reporting progress in communicative skills to the rehabilitation counselor?"

There was some variety of methods used in reporting to rehabilitation counselors. One center was visited regularly by a counselor who had complete access to the training records filed in the central office. These reports were composed of daily records kept by instructors and consolidated into a monthly report. The record provided for the daily date, the trainee's name, and three factors of evaluation rated by a letter scale system on each factor. The factors rated were (1) progress (2) quality (3) attitude. A space for comment was provided. The letter system of rating ranged from excellent to unsatisfactory and was understood by the counselor. Comments were used to interpret any unusual indications in the picture given by the report.<sup>3</sup>

One center presented the final progress report by the Director of Educational Services. This report was presented occasionally upon call by the Director of Educational Services in a detailed check list which provided a coverage of six areas of communicative skill, e.g., (1) able to express one's self (2) listening skills (3) deficiencies in the area (4) personal problems noted (5) A comment section (6) recommendations. This report was supported by documentary materials of evaluation made soon after admission and progress reports during training, giving the dates on which specific goals of achievement were made.<sup>4</sup>

One center which served the clientele of a specific referral source, operated on a set duration of training. It was understood that a termination report would be given to the rehabilitation counselor at the end of this period of training. There was also a provision, whereby, a report of progress could be requested when it was needed. The terminal report was a complete record of evaluation of the entire training program. The section devoted to communicative skills covered the evaluation of five areas, e.g. (1) typing and handwriting (2) machines, with and without optical aids (3) recreational aids - reading cards, etc. (4) to improve trainees' use of residual vision (5) additional observation and recommendations. The evaluation report covered 28 items, or factors, of evaluation. The evaluation record was supported by a check list of 58 items used during the training period to assure detailed instruction. This record was consolidated into a summary sheet, giving the results of progress as indicated by tests and the dates on which such results were achieved. A medical report was also included in the terminal report.<sup>5</sup>

One center used a combination initial evaluation and final evaluation report to portray the progress by a coded scale supplemented, or clarified, by a narrative section. The evaluation scale served as a guide to instructional needs and was composed of the following six major sections: (1) Functional Behavior in Classroom (2) Method and Performance Level of Reading (3) Method and Performance Level of Writing (4) Arithmetic Computation (5) Language Skills (6) Areas of Emphasis in Listening. These six areas covered sixty factors of performance and each was coded to indicate the level of the performance in the initial evaluation and the level of performance at the final evaluation.<sup>6</sup> This center, to some extent, limited its service to one referral source and customarily gave the report to the rehabilitation counselors in a conference setting at the center in which the individual instructors and their supervisors participated.

The report on communicative skills of another center also combined the evaluation assessment with the results of instruction. The report on communicative skills was one of a six-section record in which seventeen skills of this area were listed and evaluated. There were four major areas of performance listed: (1) Braille (2) Typing (3) Penmanship, and (4) Tape Recorder. One area with which the survey made inquiry, that of oral communication, was assigned to the department of skills of daily living.

This was reported under a subheading of "Social" but the report indicated that the instruction included most, if not all, the specifics related to oral communication covered by the survey.<sup>7</sup>

Other centers made reports to rehabilitation counselors in narrative form, in which the areas of communicative skills were covered. These reports could be given three classifications which were also characteristic, to some extent, of the other kinds. These classifications are essentially: (1) an evaluation report (usually given as the first report to the counselor) (2) progress reports (at regular intervals, usually monthly, describing the progress in learning) and (3) a termination report (at the end of the training period, summing up the present performance ability of the trainee.) Narrative reports of communicative skills form only a section, or several paragraphs, of the total center report to the rehabilitation counselor. A sample outline of narrative reporting is given here but the sequence is not necessarily followed at all times, and all areas are not always included. This following outline would vary, according to the needs of individual trainees: (1) Attitude Toward Self and Others (2) Recreation (3) Social Skills (4) Personal Management a. techniques of daily living (5) Handicrafts (6) Orientation and Mobility (7) Communicative Skills a. braille b. typing c. alpha communicative techniques d. abacus e. oral communication (8) Group Therapy. Only this skeleton of a narrative report can be given.

While reporting to rehabilitation counselors, like equipment and furniture is not an area of instruction for rehabilitation clients, it is an area of communication vital to the effective use by the rehabilitation counselor of the training his client has received.

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- 1 Ibed, Richard T. Ludden
  - 2 Crown Office Supply Co, 1255 South Wabash, Chicago, Ill.
  - 3 Appendix Exhibit A
  - 4 Appendix Exhibit B
  - 5 Appendix Exhibit D
  - 6 Appendix Exhibit C
  - 7 Appendix Exhibit F



### CHAPTER III

## IMPLICATIONS AND DISCUSSION OF RESULTS

### Section I: Braille Usage

Results indicate the eight centers surveyed use a common set of instructional materials with modified approaches necessary for the instruction of certain individuals. No standard approach to the use of these materials has been adopted, although there is a common core of implied need reflected in the approaches used by instructors who felt the need to do something before placing braille reading materials in the hands of learners, and by instructors who found learners having difficulties after having placed materials in their hands.

The common use of tactile perception and discrimination tests combined with modified materials of instruction implied the need for an extra step in the orientation to braille usage, or a further evaluation of reading readiness. The implied duration of such a step ranged from two to four weeks and is usually referred to as "Pre-Braille Instruction." This implied step of instruction in braille usage has not been built into the currently most commonly used instructional materials.

The most commonly used materials for teaching braille reading seemed to some instructors to be designed for self-teaching or home study, whereby, family members or others could help the student learn the alphabet in sequence and then build words. This method of learning seems to be an adaptation of sighted methods of reading instruction used in pioneer days but which has been replaced. Experience of some braille instructors who discarded the pioneer method has indicated that presenting the uncontracted code and the contracted code (or final word form) simultaneously prevented the wasteful process of unlearning one system and learning another.

The implication that the design of instructional materials most commonly used fails to facilitate reading proficiency implies the need for some supplementary guide for these materials when used by instructors in rehabilitation centers.

Bauman, "Characteristics of Blind and Visually Handicapped People in Professional, Sales, and Managerial Work" - p. 27, Table 21 p. 111.

| <u>Male</u>   | <u>Usage</u>                   | <u>Female</u> |
|---------------|--------------------------------|---------------|
| 21.6%         | None                           | 18.7%         |
| 14.9          | Occasional                     | 9.9           |
| 5.2           | Reads Only                     | 0.0           |
| 14.1          | Reads & makes notes            | 7.7           |
| 25.6          | Constant use in Files, Reading | 36.2          |
| 18.6          | Writes or Teaches Braille      | 27.5          |
| <u>100.0%</u> |                                | <u>100.0%</u> |

An evaluation guide reference for braille instructors when considering the usage a trainee will make of braille when scheduling his training (Syllabus reference.)

Pre-Braille instruction may also be an additional evaluation phase, since it would probably reveal the presence of certain conditions that would influence the learning faced by a blind person. These conditions are, at least: (1) the presence of tactile problems (2) organic limitations of learning, in addition to tactile deficiencies, and (3) emotional blockage. Tactile problems may result from the loss of sensory end organs sometimes found in certain diseases. Organic limitations arising from inability of the person to form concepts of symbolism such as words portray to both sighted and blind individuals. Emotional blockage may be the psychological rejection of a system of communication that is a symbol of total loss of sight. Instruction that provides experience in discrimination, such as a pre-braille exercise affords to tend to reduce this emotional blockage and facilitate reading readiness.

Methods of introducing the braille code by using flash cards or other short braille lines implies that modification of book sizes and length of lines may aid new learners.

Discussion of material content implied the need for the production of reading materials on various levels of adult experience and educational levels. It was felt that psychological barriers to learning were created by the use of juvenile content materials below the experience and educational levels of most trainees in rehabilitation centers for the blind.

The expressed preference for reading braille from books with certain styles of binding indicates the need for considering the functional use of a book, as well as the economy of production in the design of binding.

The advantage of short lines over long lines of braille formats, as demonstrated in flash cards and other reading readiness materials, implies that reading proficiency might be enhanced by the use of short lines for beginning braille readers, if not for experienced braille readers.

#### Writing Braille

The disadvantages of instructing braille handwriting with the slate and stylus is found in the psychological problem of reversing the code. None of the eight centers had experience with a device that enabled one to produce braille without this reversal process. Some instructors felt that more adequate orientation to the braille cell structure would reduce this problem. Experimental devices have been tried, but at the present time none are available through any known channel of supply.

## Section II: Reading by Listening

The two major devices used by blind persons are talking book machines and tape recorders. A majority of centers surveyed offered instruction in the use of these two pieces of reading equipment. Centers reported that talking book machines were used much more than tape recorders, but it was also stated that trainees preferred tape recorders. It was implied that the availability of talking book machines and reading materials was the reason for their wide usage. It was stated that, when available, the use of cassette tape recorders and reading materials would readily increase as a media of reading.

Few centers used tests or other means of measuring the development of comprehension in reading by listening. The student preferences expressed suggests that this method of reading might be stimulated if meaningful methods of evaluating progress were used. There are implications that this area of instruction can become one of the most effective means of personal and educational development for blind persons.

## Section III: Reading by use of Residual Vision

It was found that no centers placed a great deal of stress upon instructing reading by sight. Sight Saving Print is the principal media designed for blind persons to read by sight, but no scheduled instruction was conducted. Implications for such instruction were limited to the objectives of: (1) instruction in the use of optical aids (2) functional instruction for such daily activities as reading the dial of a telephone, reading print labels, and recipe books and (3) remedial reading using exercises designed to overcome reading deficiencies, but not to develop volume and speed in visual reading.

## Section IV: Handwriting Instruction

Implications of the results can only point to the various aids used for developing a concept of script, or block formations. There were implications that penmanship exercises might develop muscular control, which had not been expected of a blind person to use in handwriting. This implication hints at the development of a free hand system of writing, instead of the restricted writing systems using aids, such as frames and pocket guides. There is an implication that the handwriting guides have limited experimentation with free hand work.

## Section V: Typewriting Instruction

This is an area of instruction widely accepted as a media of communication for the blind. The limited number of centers setting goals of achievement which approach acceptable standards for vocational application implies a need for additional investigation in the use of this skill by blind persons. Some centers have made modification in instructional materials and evaluations, but there is an implication that higher standards of achievement in rehabilitation centers are not expected of blind persons in this communication media.



## Section VI: Oral Communication

The recognition of the significance of this area of communicative skill is evidenced by the fact that all but one center gave training especially designed to develop this skill. It, however, more than any other area, was scheduled irregularly. The implications for need in this area of training are especially significant. The deficiencies to be removed by instruction are some of the most handicapping to the acceptance of the otherwise capable blind person. The Implication of irregular scheduling suggests the position of importance given to this area of training. Achievements in the limited schedules under variously qualified instructors imply the strength of support inherent in the trainee's felt need. Materials of instruction and equipment seemed to be no problem.

## Section VII: Arithmetic and Related Computation

The variety of methods used for developing skill in computation in applying the knowledge of math ranged from change making, as it functions in daily life, to extraction of square root, using the abacus. The implications indicate the core of math and computation skill centered around the four fundamentals of elementary math plus percentage. Considerable emphasis was placed on the use of devices such as the abacus, cubarithm slate and in one instance the calculator, but impressive emphasis was placed on mental arithmetic, including the lowest educational levels. Some geometric study was done, but no practical uses were mentioned. In a rehabilitation center for the blind there is an implication of value in geometric study, more for environmental concept formation than for mathematic usage. Such goals of concept formation will have been achieved when the ability to identify the most common geometric figures has been developed.

## Section VIII: Equipment and Furniture

Equipment and furniture used has primarily come from stock supplies. Except for typewriting, it appears that little, and in some instances, no consideration has been given to furniture designs, which is so essential. Typewriting furniture and equipment had been obtained with consideration to its functional use, but other equipment has not been selected with the same consideration of functional use. Some experimentation has been done but conclusive findings are not now available. Information obtained about reporting trainee progress to rehabilitation counselors held slight implications for instruction. Daily records of attendance and performance were the dominant means used in building a written monthly, or other periodic report to the counselor. Counselor participation with the center staff was also used as a method of interpreting progress to the trainee. Marks of progress were, in most instances, subjective evaluations, rather than examination scores. Since rehabilitation centers' services for the blind are the first phases of rehabilitation, there may be an increasing need for an interpretation of progress that indicates the degree, if possible, of readiness for the next phase, which may be vocational training, or return to the previous occupation.

## CHAPTER IV

### SYLLABUS SECTIONS

#### INTRODUCTION TO THE USE OF THE SYLLABUS

Consider the basic nature of the person who is to receive instruction. There are two major conditions which may, and most likely will, modify the learning of a visually handicapped person. These conditions exist because of the person's experiences which differ according to the different learning opportunities of each, as determined by the time of life at which the loss of sight occurred.

These two conditions are known as: (1) congenital blindness (2) adventitious blindness.

#### Instruction to Instructor

The process of learning, which modifies the present state of dependency, is psychologically different for the two and may be an important factor to observe in a rehabilitation center for the blind. The congenital blind person may be learning a skill for the first time, consequently, this is the creation of an ability - giving a performance capacity - and in rehabilitation circles, is being increasingly referred to as "habilitation." There may be a connotation in the term that the person should have already developed the skill but, for whatever cause that has hindered, it has not been learned to a satisfactory level to meet the person's need.

The adventitious blind person may have already developed many abilities to a high level but now, due to the disability of blindness, can no longer use these abilities (such as reading, writing, and going from one place to another independently.) For this person the process is one of restoring some, although not all, of these functional abilities and is called, "rehabilitation," learning again to do the functionally necessary things to be independent in an adequate manner.

Different approaches to instruction and different goals of instruction may be quite important factors for the "habilitation" and "rehabilitation" person. Only hints can be made. The problem of learning for the congenital blind person may lie in his deprived experience, if in this case it is true, which has resulted in limited concepts, whereas, the problem of learning for the adventitious blind may lie in the difficulty of becoming acquainted with new modalities of doing some of the things previously done, and this learning can be hindered by whatever emotional rejection the person feels toward making such a change.

These two factors are mentioned at this point of the syllabus use to alert instructors to the kind of learning, "habilitation" or "rehabilitation," toward which their instructional efforts will be directed.

### Adult Learning

There is an additional factor related to instructional methods which should be observed. How adult is this person? Many trainees at a rehabilitation center for the blind are adult in their thinking. Do "Tom and Jerry" materials inspire or insult? An adult learning to read may be better motivated to read about politics, new styles, or other current matters than to read materials about dolls or kites. Observe this! If one likes children's stories, this is fine, but make this assessment.

An adult learner in a rehabilitation center needs to develop functional skill as soon as possible. To know how to write one's name in braille and read it, may be a most positive factor in a person's becoming highly motivated. In this introduction, more mention of braille reading and writing than other skills has been made, since they are the basic skills in the communicative skills area, notwithstanding the fact that some blind persons may not master braille usage well enough to use them proficiently, and may depend more on other modalities. This introduction to the use of the accompanying syllabus is equally appropriate to every training service in the entire Communicative Skills Area as well as to other areas of instruction in a rehabilitation center for the blind.

A rehabilitation center for the blind is a multi-disciplinary training agency. These disciplines must function as a team. Some of the problems of learning in the communicative skills area are basic to the acquisition of other restoration skills, and concepts formed in learning communicative skills should reinforce learning other basic skills. Positive experiences of learning functional skills remove fears and feelings of inadequacy and develops personal adjustment and prevocational readiness, which are the primary purposes of a rehabilitation center for the blind. Assess the person before beginning to instruct.



## SYLLABUS FOR INSTRUCTING BRAILLE READING IN A REHABILITATION CENTER FOR THE BLIND

### I. Assessment of the Person

- a. Adventitious blind
- b. Congenital blind
- c. Partially sighted
  - 1. Assess effective use of sight and efficiency of reading.
  - 2. Why should this person learn to read or write braille?  
(is this a progressive condition)
- d. Condition of need
  - 1. A "rehabilitation" need
    - (a) on what level of reading and writing did this person function prior to loss of sight?
    - (b) to what extent does it seem practical to restore this person's functional ability to its former level of proficiency?
    - (c) what media should be used (braille, print, recordings)
  - 2. A "habilitation" need
    - (a) what level of reading and writing ability does this person possess?
    - (b) what level of reading and writing ability does this person need for functional use?
    - (c) what media should be used?(braille, print, recordings)

Note: if the media of braille is to be used, proceed with this outline. If another media is selected, use the appropriate syllabus. (Reading by Residual Vision or Reading by Listening, or both). Attention has been very lightly, but purposefully, directed to reading and writing braille, since they are complementary skills, but instruction in writing has usually begun after some knowledge of the braille cell and code has been gained; perhaps when one has acquired knowledge of enough alphabetic symbols to form a word. This is a decision which the instructor must determine on an individual's case, although current practice supports conducting the instruction in reading and writing braille as simultaneously as possible.

### II. Basic Interpretation of this Skill in the Rehabilitation Development

- a. This is the way for visually handicapped persons and totally blind persons to read what they write, and usually what other capable blind persons write.
  - 1. This method of reading has been tried and proved to be most nearly the equivalent of the pencil and paper method used by sighted persons in correspondence with others and in communicating with oneself by use of memos, notes, and personal records.

2. When one reads braille, an orderly set of personal and financial records, also files of recipes, can be kept in an alphabetical order, so can the addresses of friends and business connections, and references for reading pleasures.
- b. To the adventitious blind person: being able to read and write will restore the two abilities most basic to all civilizations.
- c. To the congenital blind person: when one learns to read and write braille, he has developed the basic ability by which the human race has developed a civilization.

### III. Evaluation of Functional Use of the Braille Code

- a. Person's previous instruction, or self-directed instruction, in braille.
  - b. Present level of proficiency in reading and writing braille.
- Note: Words per minute; level of reading comprehension; name only, or no performance.

### IV. Tentative Assessment of Goals of Instruction

- a. Estimate of ability to achieve: (educational background, mental ability, physical limitation).
- b. Estimate of level of achievement demanded by vocational or other goals which motivate.
- c. Possible goals may be:

| Knowledge                                                                                     | Level | Use                                                                                                  |
|-----------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------|
| Alphabet                                                                                      | 1     | Read and write name                                                                                  |
| Number Signs                                                                                  | 2     | Read and write telephone numbers and addresses                                                       |
| Capital & punctuation signs, some or all; uncontracted braille                                | 3     | Read and write simple sentences; personal and business letters; monetary notation and recipes        |
| Contracted braille                                                                            | 4     | Read instructional manuals; cook-books, technical instructions and general reading; magazines, books |
| Catalogs, dictionaries and reference books                                                    | 5     | At this level, speed and skill to meet the educational and vocational goals should be considered     |
| Contractions & abbreviations possibly grade III; a more highly contracted portion of the code | 6     | Primarily for self-communication and speed in note-taking                                            |

When assessments and goals have been tentatively set, preparation for instruction directed toward fulfilling the assessments and meeting the goals should begin.

## V. Preparation for Braille Reading Instruction

### a. Braille readiness process

#### 1. Developing tactile perception

- (a) braille readiness exercises; roughness discrimination materials; form discrimination; form identifications.

Note: form discrimination, especially form identification, may highlight conceptual deficits, which may be more pronounced in the congenital blind person.

- (b) recognition of punctiformed materials, large and small; such as lines and patterns of embossed points and dots of varying sizes.

Reference example: "Teachers Edition, Kansas Braille Reading Readiness Book, Book I," by Claudell S. Stocker, A.P.H.; Giant braille or micro braille sized embossments, but not the braille cell yet, if it is unknown to the person to whom this introduction is being made.

#### 2. Developing kinesthetic perception (muscle learning of space, position, relationship of one object to another in space and size involving movement. "Sense of muscular effort.")

#### 3. Psychological readiness

- (a) thinking braille - visualize new alphabetical symbols.
- (b) interpretation of tactually preceived objects (identify nails, tacks, raised letters, wire screen, length of an object - one inch; one foot; one yard; size of book; size of desk or table; plastic sheets of raised symbols.

#### 4. Assessment of physiological function and problems

- (a) amputations or other limiting orthopedic conditions that suggest modification of instructional techniques, materials, equipment or furniture.
- (b) organic conditions, medically diagnosed or observed such as "senile trembles," spastic and other neurological deficits that limit sensory perception or functional activity.
- (c) accommodate working comfort of physique; proper positions; feet on floor; table heights; no elevation of shoulders.

Note: some instructors practice making no mention of braille meanings during the entire series of assessments and evaluations, but work to help the person develop confidence in the ability to know (identify) objects; nails, embossed dots, geometric objects, books and dimensions by tactile perception, before placing any braille materials for study in a person's hand. The duration of such preparation of braille reading readiness may vary from one to three weeks. This is learning foundation work on which effective braille skill development may depend.



## VI. Braille Instructional Process

- a. Select instructional materials.
  - 1. Flash cards; manuals of instruction or specially prepared instructional materials.
  - 2. Make appropriate assignments and schedules of instruction; encourage self-study but obtain personal feedback of progress; discover errors and instruct for accuracy.
- b. Approaches to braille teaching
  - 1. An approach that has been used many years is the process of instructing the use of the alphabet, simple punctuation, numerals, and then advance to contractions. Words are first learned in uncontracted form and then re-learned in their final and contracted form.
  - 2. A more recent approach that has been developed is the process of teaching the alphabet and contractions simultaneously, whereby, words are learned only in their final form.
  - 3. Remedial reading instruction

Note: Rehabilitation centers are not academic agencies. The extent to which remedial reading may be instructed must be determined by agency policy. It usually encompasses word recognition, spelling, and techniques.

    - (a) evaluation of need and limitation of instruction for persons who already have a reading skill.
    - (b) evaluation of need and limitation of instruction for persons who have no previous reading skill. Practical rehabilitation center considerations:  
Duration of training ranges from three to six months. Goals of instruction should be adjusted to meet functional needs of the person by the time the training period has been completed. Minimums should be striven for, if maximums appear unattainable.

## VII. Evaluation of Progress

- a. Evaluation of personal ability to perform should conform to the concept of assessment rather than measurement.
  - 1. Intelligent quotients, when known, indicated a possible range of performance, not an exact degree of performance.
  - 2. Emotional factors are to be observed and in staff teamwork assessed as a factor in learning.
  - 3. Performance also can be meaningfully interpreted by assessment techniques.
- b. Skill performance can be fairly accurately stated in terms of (1) reading rates (2) vocabulary content, and (3) reading comprehension. Progress in skill performance, to be meaningful, needs to be stated on comparative basis:

1. Rate of specific performance at admission.
2. Present rate of performance.
3. Time, or period of time, in which the performance change has taken place.
4. Braille reading rates have been dependably reported to be:
  - (a) elementary level 55-75 words per minute
  - (b) high school 100 words per minute
  - (c) high school sighted reading rates average 250 words per minute

Note: Interpretation of these performance rates can enable an instructor to help a trainee make a self-assessment. Characteristic traits of an assessment: (1) level (2) rate (3) range (4) efficiency and (5) autonomy.

Interpretations:

1. Level: amount of achievement or school grade equivalents.
2. Note: amount of time required to achieve a specific amount of work or a grade level, or to make certain gains; regression - gaining more slowly or actually losing; accelerated - gaining more rapidly to successively higher levels, using less and less time.
3. Range: area or scope of achievement, one field or several, in which, regressing or accelerating.
4. Efficiency: accuracy with which one performs: no errors, or more errors, or less errors, or less and less errors.
5. Autonomy: evidence of independent, self-actualized behavior: how does one go about the task? directed by others or self-directed? and how is task completed?

VIII. Instructional Materials Now Available for Syllabus Use

a. Braille Readiness Process

1. Books:
  - "Alma and Adam" - Braille Primer - A.P.H. (introductory pages only)
  - "Braille Series" (introductory pages only) 1960 Book I, A.P.H.
  - "Kansas Braille Reading Readiness" Book I of series "Modern Methods of Teaching Braille" A.P.H. (new)
2. Tactile Materials - From A.P.H.
  - cardboard squares for parquetry; roughness discrimination test; embossed and bold line graph sheets; maps of United States; the master cube; bold line writing paper; Mitchell wire forms with matched planes and volumes;
  - "Adjustable Braille Cell for Instructional Purposes," by James A. Esser, 107 Gunlock Avenue, Tampa, Fla. #350

Note: Many variations of braille cell sizes are used to familiarize persons with the braille cell when the point of readiness for instruction in braille has been attained. Until the braille cell and instructional readiness has been attained, some experienced teachers refrain from

referring to embossed dots as braille component. Embossed dots possess the significance of braille only when the meaning of braille has been given to them. Embossments, when arranged with specific meaning to the arrangement, becomes the braille code, and symbols for reading and writing.

b. Braille Instructional Process Materials

1. Books

- "Braille Reading Simplified," Book II, by Claudell Stocker, A.P.H.
- "Krebbs Reader," by Bernard Krebs, Library of Congress, Division of Services for the Blind and Handicapped
- "The Foundation Adult Primer," contracted only: A.P.H. 5-42-98
- "The Alma and Adam Braille Primer" A.P.H. 5-0385
- "Braille Series" 1960, Book I to III with accompanying practice materials, A.P.H.
- "Uncontracted Braille" Book I - 60 - 63
- "Beginning Contracted Braille" Book II - 1964
- "Completing Contracted Braille" Book III - 1960
- "Remedial Primer" - Braille Association of Kansas, Wichita, Kan.

2. Miscellaneous

- "Catalog of Periodicals of Interest to the Blind in the United States and Canada" A.F.B.
- "General Catalog" Braille Publication A.P.H.
- "The Central Catalog" - Instructional Materials Reference Center for Children, A.P.H.
- "Story of Louis Braille" A.P.H.

3. Tests

- "Diagnostic Reading Tests" - Survey Section - lower level (grades 4-8)
- "Directions for Administering" - Form A, Booklet I, Part I,
- "Word Recognition and Comprehension," Form A, Booklet I, Part II, Vocabulary Part 3; Story Reading
- "Diagnostic Reading Tests" - Survey Section, Form A, upper level (grade 7 through college freshman)
- "Directions for Administering," published and distributed by The Committee on Diagnostic Reading Tests, Kingscote Apt. 3 G, 419 West 119th St., New York 27, N. Y. also distributed by Science Research Associates, 259 E. Erie St., Chicago, Ill.

Recorded Numbers for Lower Level:

- Directions 7 - 1404
- Booklet I, Part 1 7 - 1401
- Booklet II, Part 2 and 3 7 - 1403



## SYLLABUS FOR INSTRUCTING BRAILLE WRITING IN A REHABILITATION CENTER FOR THE BLIND

Note: The Introduction to the Use of the Syllabus should be made available to each instructor, either as a readily available reference or copied and attached to the syllabus for this specific area of instruction.

### I. Assessment of the Person

- a. Adventitious blind
- b. Congenital blind
- c. Partially sighted
  1. Assess the effective use of sight in writing.
  2. Why should this person use braille as a mode of written communication?
- d. Condition of need
  1. Is this a "rehabilitation" development?
    - (a) on what level of written communication skills did this person function prior to the loss of sight? What use was made of writing?
    - (b) what knowledge of braille does this person now possess?
    - (c) what functional use of braille writing does this person need to develop - to what level of performance, as estimated by his educational and/or vocational objectives?
  2. Is this a "habilitation" development?
    - (a) has this person used braille or any other mode of written communication?
    - (b) for what purposes were written communication used and on what level of skill?
    - (c) for what purpose does this person need to use braille writing and at what minimum level of skill?
    - (d) does this person possess sufficient knowledge of braille to begin writing?

### II. Basic Interpretation of the Usage of Braille Writing Skill in Rehabilitation Development

- a. Remember - reading and writing are complementary skills a person gains information and knowledge by reading, but one can store present information and instructions for his own future use and communicate with oneself and others best, by writing.
  1. The skill of writing braille enables a blind person to accurately label clothing, canned foods, identify personal articles and write personal letters.
  2. Skilled braille writing enables a blind person to create and maintain an accurate file of important addresses, information

- about jobs, business accounts, resources and agencies from which to obtain useful aids and services.
3. For the adventitious blind person who had used handwriting before losing sight, braille writing is the only accurate and ready means by which this skill can be restored.
  4. For the adventitious blind person who had not learned to use handwriting before losing sight, braille writing skill will develop an ability to communicate with himself and others who know braille.
  5. For the congenital blind person who, prior to entering a center had used braille, improved knowledge and skill may be a most important rehabilitation development, depending upon the factors:
    - (a) ability to improve
    - (b) educational goals
    - (c) vocational goals

### III. Evaluation of Functional Use of Braille Writing Skill

- a. Knowledge of braille writing
- b. Methods of braille writing
  1. Slate and stylus
  2. Brailier
  3. Electric braille typewriter
- c. Proficiency in writing braille
  1. Accuracy
  2. Rate of writing
  3. Quality of punctiform production
- d. Problems in writing braille
  1. Psychological problems
  2. Physiological problems
  3. Organic problems, such as spastic states, neurological defects, and mental inability.

### IV. Tentative Assessment of Goals of Instruction

| <u>Knowledge</u>                   | <u>Level</u> | <u>Functional Use</u>                                                       |
|------------------------------------|--------------|-----------------------------------------------------------------------------|
| Alphabet Symbols                   | 1            | Write name labels                                                           |
| Number Signs                       | 2            | Addresses; telephone numbers                                                |
| Capital Signs                      | 3            | Proper names; personal memos                                                |
| Punctuation Signs                  | 4            | Simple sentences; refined addresses; self-communications                    |
| Spelling and the contracted code   | 5            | Communication of a more refined type; note-taking; business records         |
| Grade III Extended Contracted code | 6            | A logical extension of code for rapid note-taking or one's own personal use |
| Journalistic and Professional      | 7            | Technical and professional articles                                         |

Note: Goals are tentatively set in a rehabilitation center. They should be advanced to higher levels:

1. When performance indicates ability to reach higher goals.
2. When interest and motivation reach for higher goals.
3. When vocational objectives, duration of training, and other training needs are favorable factors for setting higher goals. Goals and assessment of need must be done on an individual basis.

#### V. Preparation for Braille Writing Instruction

##### a. Braille Writing Readiness

1. Braille reading readiness has been achieved satisfactorily.
2. Braille knowledge enables the writing of at least a two letter word.
3. Physical capacity assessment indicates ability to functionally use the devices of braille writing.
4. Conceptualization of the braille cell structure has been well formed.

##### b. Broaden the concept of the braille cell.

1. Can the person identify the cell arrangement by the number sequence?
2. Can the person, from memory, combine cell points by numbers to form a word?
3. Can the person conceptualize the cell number sequence when it is reversed?
4. Use an enlarged cell and the forefinger to explore the cell contour and identify the point positions in the writing cell (see reference)

#### VI. Braille Writing Instructional Procedure

##### a. Begin writing instruction as soon as possible, and conduct it simultaneously with braille reading instruction.

1. What words can be formed from the alphabetic symbols known to the person?
2. Use the most familiar words that can be created from the alphabetic symbols known to the person.

##### b. Introduce the braille slate

1. Help the person conceptualize the slate as a series of braille cells - miniatures of the enlarged cell previously explored with the forefinger.
2. Introduce the various slate models, plastic, four line, full page slate, etc. (note: consult supply catalogs)
3. Explore the face of upper leaf of slate for cell counters and line dividers.
4. Explore finger index tip for raising upper leaf of slate.



5. Locate and operate the hinge.
6. Locate paper holding tacks on either the upper or lower leaf of slate; there should be four tacks.
7. Demonstrate how to change gauge.
8. Demonstrate techniques of correcting errors, and correcting device, if used.
- c. Introduce the stylus
  1. Help the person conceptualize the stylus as a writing instrument.
  2. Demonstrate tactually, the proper holding of the stylus.
  3. Acquaint by the tactual method, the vertical motion of the stylus necessary for writing, which is commonly called embossing.
  4. Demonstrate proper method of inserting paper.
- d. Pressure and manipulation exercises to develop embossing techniques in using the stylus within the framework of the slate, using forefinger non-writing hand to select.
- e. Make a schedule for daily instruction and practice during which instructional direction may be given, problems identified and corrective measures given.
  1. Create a file of the person's daily work samples, dated and identified by name.
  2. Review progress with learner daily, weekly, and monthly, comparing the progress in (1) accuracy and (2) amount of work completed currently with that done at an earlier date in a similar or identical period of time (a daily schedule period is a standard unit of time for comparison). Encourage, rather than pressure.
- f. Stimulate the slate and stylus practice in writing and correcting errors. The use of the braille slate and stylus is basic restoration of one's ability to read one's own writing. The braille writer is a supplemental writing device, although faster than slate and stylus, is expensive, heavy and often not at hand when one needs to make personal notes and memos.
- g. Introduce the braille writer
  1. The braille writer has been used effectively to reinforce braille reading concepts and has definite value for producing letters, articles, and themes in educational work.
  2. Familiarize by touch, the entire machine. (writer)
  3. Familiarize with operational features of machine as they are introduced in the sequence of instruction.

Note: Consult the manual of care and operation of the brailier in use.

4. Posture, chair and table height adjustments.
5. Advantages of the braille writer.
  - (a) enables the writer to read the written material without removing it from the writing device.
  - (b) Less tiring for extended writing periods.
6. Greatest disadvantage: expensive, heavy, and sometimes difficult to obtain.

h. Extension of the code (commonly called Grade III)

Note: This is a logical extension of the code for note-taking. It is not a commonly used correspondence media. Its effective use is limited to the person who writes it, who must develop a dependable knowledge of the extended contractions if it is to serve him accurately.

VII. Evaluation of Progress

a. Factors of evaluation

1. Accuracy is fundamental
2. Speed: rate of production is secondary to accuracy, but speed is a requisite for proficient use, and critically essential in specific vocations.
3. Evaluation of slate and stylus use.
  - (a) for personal use, only eight words per minute may suffice but this is slow.
  - (b) for educational and specific vocations, 15 words per minute is usually a minimum.
4. Evaluation of braille writer use.
  - (a) personal use should exceed speed of the individual's slate and stylus rate per minute, with emphasis on accuracy.
  - (b) for educational and vocational use the minimum should approach 25 words per minute; for vocational purposes, higher rates are desirable.
5. Tests of speed with definite penalties for errors can be used but should be a consistent standard.
6. Progress evaluation may and should be done by comparison of one's present performance with earlier periods of performance.

VIII. Materials of Instruction

Manuals

1. "Revised Braille for Reading and Writing Grade One and a Half; Literary Notations" - based upon "Revised Braille for Reading and Writing Grade II" 1944, A.P.H. Braille Edition, 6-0547; Ink Print Edition 1943 8-0547
2. "Transcriber's Guide to English Braille," by Krebs, A.P.H. 6-4540
3. "Lessons in Braille Shorthand" - Hadley School for the Blind, Winnetka, Ill.
4. "Key to Grade Three Braille," by Lewis Rodenberg, A.P.H. 5-6586
5. "A Guide to Grade Three," by Ruth Hayden, A.H. 1963 (Ill. 1958) 5-1963
6. "Dot Writing," by Janet Wise, 1960, A.P.H. 039210  
Source: Minnesota State Services for the Blind,  
555 Wabash St., St. Paul, Minn. 55102

#### References

1. "Programmed Instruction in Braille," by Ashcroft and Henderson 1962, Stanwix House, Philadelphia, Pa. A.P.H. 039300, 1962 and 039301, 1963
2. "Standardization Guide for Braille Transcribing," A.P.H. 039160

#### Tactile Aids

1. Shop made enlarged braille cell - size approximately 3 1/2"x 4 1/2" with partitions between cell points.
2. Shop made enlarged braille cell - size approximately 3 1/2"x 4 1/2" with partitions between cell points removed, creating a semi-circular area in the position of each of the cell points.
3. "Kansas Enlarged and Hinged Braille Cell" Kansas Rehabilitation Center, 6th and McVicar Sts., Topeka, Kansas.



**SYLLABUS FOR INSTRUCTING READING BY USE OF RESIDUAL VISION IN A  
REHABILITATION CENTER FOR THE BLIND**

**Note:** The "Introduction to the Use of the Syllabus" should be made available to each instructor, either as a readily available reference or copied and attached to the syllabus for this specific area of instruction.

- I. Assessment of the Person**
  - a. A partially sighted person
    1. Congenital blindness
    2. Adventitious blindness
  - b. Assess degree of functional sight
    1. Medical diagnosis if available
    2. Functional ability to read print: (a) size of print (b) rate of reading (c) how reading is done; with or without optical aid
  - c. Potential user of optical aid
    1. Previously evaluated in optical aid clinic
    2. If no experience with aid, what motivation is shown for clinical evaluation?
    3. If currently used aid is clinically approved, begin with present level of reading by residual vision performance
- II. Basic Interpretation of the Skill of Reading by Use of Residual Vision**
  - a. This training is one of practice rather than a restoration of sight. It is designed to develop, or redevelop, skill in using one's remaining sight.
  - b. After being instructed in the use of properly selected optical aid, development of skill in reading results from persistent visual reading practice.
- III. Evaluation of Present Functional Use of Reading by Residual Vision**
  - a. Attitude: does this person desire to read by sight or is there a reason for reading by sight?
  - b. Does the present level of performance in reading by use of residual vision meet his needs adequately?
  - c. Is remedial reading indicated, and is this person motivated to build vocabulary, increase his rate of reading, or develop the techniques required of him?
  - d. Reading and production of own writing
    1. What devices are used in writing; felt pens, magic markers, guides, templates, ordinary pens or pencils, or none?
    2. Can read bold or fine script and print materials?
  - e. Does present level of reading by use of residual vision meet the educational, social and vocational demands upon the person?
    1. Are deficiencies due to lack of knowledge of words?
    2. Are present deficiencies due to inadequate sight to see the words?
    3. Does the mental capacity of this person indicate that reading may be developed to the proficiency needed to meet educational, social and vocational goals?
  - f. Is this an academic process or an optical aid clinic process?
    1. Interpret the distinction of the two processes

- (a) academic process requires literate training, alphabetic symbols, word formation, and sentence structure.
- (b) optical aid process requires practice in recognition of words under magnification and the development of skill in restoring meaning to visually perceived symbols, together with speed and accuracy in eye and device coordination.

#### IV. Tentative Assessment of Goals of Instruction in Reading by Use of Residual Vision

| Knowledge                                                 | Level | Use                                                                                                      |
|-----------------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------|
| No recognition of words by sight, illiterate academically | 1     | Read and write own name and address                                                                      |
| Dolch list, 220 words basic                               | 2     | Personal letters                                                                                         |
| Elementary level education                                | 3     | Read and write personal letters; short business letters                                                  |
| Junior High                                               | 4     | Read texts, manuals, direct self in remedial exercises reading rate 75 w.p.m.                            |
| Senior High                                               | 5     | Read texts, develop speed to 150 w.p.m.                                                                  |
| High School                                               | 6     | Reading one hour without excessive eye strain; rate 250 w.p.m. average for sighted high school graduates |

#### V. Preparation of Person for Instruction

- a. Determine motivation
  - 1. Obtain optical aid report.
  - 2. Interpret possible goals of instructions.
  - 3. Determine goal as set by trainee.
- b. Ascertain the reading interest of trainee; daily news, periodicals, fiction, sports, financial pages, text books, children's, adolescent's or adult's.

#### VI. Instruction Process

- a. Schedule for instruction
- b. Provide, or guide, in selecting and obtaining appropriate reading materials.
  - 1. Refer to librarian.
  - 2. Make known, titles of appropriate reading materials.
- c. Obtain feedback on reading activity.
  - 1. Provide remedial reading when indicated.
  - 2. Evaluate results of remedial reading.

## VII. Evaluation of Progress

- a. Obtain listing of titles read, such as:
  1. Books, articles, periodicals
  2. Review completeness of assignment; level of material appropriate to goal.
- b. Compare rate, range, self-direction, efficiency:
  1. Rate of reading speed
  2. Range - narrow interest, or broad
  3. Efficiency comprehension, ask for outline and discussion, either to instructor or before an informal or formal group.
  4. Self-direction: how much, and what, was read beyond instructional assignments?
- c. Administer standard diagnostic reading tests, if available.

## VIII. Materials of Instruction

### Periodicals

1. Readers Digest - large print
2. New Outlook - normal print
3. Center News and "Public Relations" publications
4. Daily Newspaper

### Manuals or Books of Instruction

1. "Remedial Reading Drills," by Hegge, Kirk and Kirk, Wayne County Training School, Northville, Michigan, Ann Arbor, Michigan (1965)
2. Large Print World Book
3. "Learning to Spell," by Yoakum and Daw, Ginn 1961, A.P.H. large type 827700

### Tests

1. Diagnostic Reading Tests (reorder 7-1404) Lower Level, Form A Grades 4 - 8, Pt. 2 - 3 & Survey Section & Directions
2. Diagnostic Reading Tests (reorder) Higher Level Form A, Grade 7 - 13, Survey Section & Directions; Science Research Associates, Inc., 259 E. Erie St., Chicago, Ill., or Industrial Home for the Blind, L.T. 154800, 329 Hempstead Turnpike, West Hemstead, N. Y. 14210

### Sources for Large Type Materials

1. Harper & Row, 49 East 33rd St., New York, N. Y. 10016
2. Golden Press, 850 Third Ave., New York, N. Y. 10022
3. Keith Jennison Books, 575 Lexington Ave., New York, N. Y. 10022
4. Large Print Publications, 11060 Fruitland Drive, North Hollywood Calif. 91604
5. The Macmillan Company, 866 Third Ave., New York, N. Y. 10022
6. Charles Scribner's Sons, 597 Fifth Ave., New York, N. Y. 10017
7. Ulverscroft Large Print Books, F. A. Thorpe, Ltd., Artisan House, The Bridge, Anstey, Leicester, England
8. The Viking Press, Inc., 625 Madison Ave., New York, N. Y. 10022



9. Walker and Company, 720 Fifth Ave., N. Y. 10019
10. American Printing House for the Blind, 1839 Frankfort Ave.,  
Louisville, Ky. 40206
11. National Aid to Visually Handicapped, 3201 Balboa St., San  
Francisco, Calif. 94121
12. Stanwix House, 3020 Chartiers Ave., Pittsburgh, Pa. 15204
13. Bell and Howell Co., Micro Photo Division, Duopage Dept.,  
1700 Shaw Ave., Cleveland, Ohio 44112
14. Dakota Microfilm Company, 501 North Dales St., St. Paul,  
Minn. 55103

## SYLLABUS FOR INSTRUCTING HANDWRITING IN A REHABILITATION CENTER FOR THE BLIND

Note: The "Introduction to the Use of the Syllabus" should be made known to each instructor, either as a readily available reference or copied and attached to this syllabus as a part of it for the instructor's use.

### I. Assessment of the Person

- a. Adventitious blind
- b. Congenital blind
- c. Partial sighted
- d. Condition of need
  - 1. Is this a "rehabilitation" or a "habilitation" development?
  - 2. Is there a strong or weak expression of interest in learning to use this skill, either as a restoration of a skill, or as a development of a new ability by which a person becomes more self-sufficient?
  - 3. Assess the physical capacities to determine what other handicaps beside blindness may be problems in following instruction.

### II. Basic Interpretation of the Use of the Skill of Handwriting

- a. Handwriting is the first and oldest means of making permanent records.
  - 1. Cave men made drawings with burnt sticks, colored clays, and carvings to tell others of their experiences.
  - 2. Handwriting is an expressive skill, as is speaking, but handwriting is a more permanent expression.
  - 3. Handwriting in our society is the most accessible and most expressive means of communication with others by correspondence. Pencils, ball point pens, and paper are inexpensive, compared to all other means of communication. By training, a blind person can write legible letters.
  - 4. The business of the present civilization is transacted on the authority of handwriting. By means of one's signature, checks are endorsed for payment; one authorizes payment of accounts by signing a check; contracts and other purchases are made upon the authority of one's handwritten signature.
  - 5. A person's signature expresses its owner's authority, and represents the owner, wherever it is identified. One does not have to use eyesight to make a legible signature.
  - 6. Handwriting skill can enable a visually handicapped, or blind person to use it, far beyond the limits of making a simple signature or signing one's name. There are methods by which a person can handwrite personal and business letters.
  - 7. Handwriting skill can be learned by conscientious and purposeful practice if one desires. The extent to which it can be developed depends upon one's persistence in following instruction and practice.

8. If one has ever enjoyed writing by hand, this pleasure and satisfaction can be restored and pride in representing one-self well can be developed if one has never used this media of self-expression before now.
9. Handwriting is a skill one can develop by conscientious practice and effort, if one desires.
10. Handwriting skill is a motor skill. It depends more on kinesthetic senses (muscle movement or motor memory) than upon sight. Sight enables one to follow a line or know where to write but sight alone cannot create skill in handwriting; handwriting skill can be developed through muscular memory alone.

### III. Evaluation of Present Functional Skill and Use of Handwriting

- a. For what purpose has this person used handwriting?
  1. "X" or "His Mark" witnessed by others as signature; what concept of handwriting is reflected by such use.
  2. Inquire about letter writing, record keeping, check endorsements, mail orders and charge accounts.
- b. Evaluate quality of handwriting
  1. Is it legible?
  2. Is it skillfully or laboriously done?
- c. Evaluate method of handwriting
  1. What aids are known?
  2. What aids are used regularly and kept accessible?
  3. How does one sign his name?
  4. How does one follow a straight line?
- d. Evaluate other handicaps to using handwriting beside that of blindness.
  1. Deformities: many orthopedic deformities are no handicap to the proper use of a pencil or pen; observe neural and organic impairments - reassure the person.
  2. Pens require less pressure and power than pencils. Is firmness of grip on writing instrument a factor? If pressure insures control, use pencil instead of pen.
  3. Is visual feedback important to developing this skill; if so, select writing instrument suitable for such: felt pen, large lead, but use most appropriate for size and legibility.

### IV. Tentative Assessment of Goals of Instruction

| Knowledge                                           | Level | Functional Use                                                                                                                       |
|-----------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------|
| Write Name                                          | 1     | Sign name legibly                                                                                                                    |
| Write words in ordinary use;<br>muscular exercise   | 2     | Signature; letters; short memos;<br>full legibility                                                                                  |
| Kinesthetic development<br>muscle sense of movement | 3     | Muscular method instead of finger method<br>of writing. Enables one to write with ease<br>and less fatigue for long periods of time. |
| Sketching, engraving                                | 4     | Artistry, specialized vocations                                                                                                      |

Note: Experience found in the research on this project indicates that restoration of former handwriting skill is a fully realizable goal in four months. Let this be known.



## V. Preparation of the Person to Receive Handwriting Instruction

- a. Familiarize the person with the various aids to be used.
  1. Develop knowledge of each aid, how to identify it by name and by touch.
  2. Establish the knowledge of each aid and its function as a handwriting tool by reviewing them with the prospective trainee. Ask trainee to make the selection and identification, while instructor checks (or observes) results.
- b. Kinesthetic Exercises
  1. With the aid selected to help form the symbols of handwriting, trace the recessed letters until it can be done by free hand movement.
    - (a) create mental imagery.
      1. trace outline on palm of hand
      2. shape in clay or other plastic and pliable materials
      3. shape with soft wire (wiresolder, acid free solder)
      4. strings, twine or sandpaper symbols, glued to paper, raised letters and lines are useful in creating mental and kinesthetic memory, cardboard letters.
      5. use braille cell points and combinations for building concepts of letter formation.
  2. Strive for confidence building with both the "rehabilitation" and the "habilitation" person.
    - (a) exercises in tracing the coils of an extended spring, or continuous coils of wire, or in firm modeling clay, or grooved coils in masonite boards, or twine made continuous ovals, separate ovals, thermaform materials may help to develop kinesthetic memory and stable muscular control.
      1. Use patterns of Palmer or Spencerian methods in raised form; ovals.
      2. create, with the aid of the trainee preferably, a small practice board.

## VI. Instructional Process

- a. From evaluation conclusion, begin handwriting exercises, working toward objectives.
    1. Use method for limited objective.
    2. For extended objective, develop spatial concept.
  - b. Work for control first, but reasonable speed is essential to muscular education.
  - c. Instruct on size after control and speed are established.
  - d. Practice, interpret and encourage.
  - e. Use stringboards and other devices for line control; such may be helpful in some cases for developing muscular control.
  - f. Intersperse each writing schedule with muscular control exercises; develop space and size comparisons, use finger width as measuring guide.
- Limit instruction to goals and ability to make progress.

## VII. Evaluation of Progress

- a. Compare: legibility, size, neatness, with work done in evaluation phase, and in earlier assignments.
- b. Observe increased functional use of skill; written correspondence; volume of daily exercises produced.
- c. Change of attitude toward development of the skill of handwriting.

## VIII. Materials of Instruction

### Books and/or Manuals

1. "Restoration and Habilitation of Handwriting Skills to Adults in a Rehabilitation Center Setting," by Mary Lou Stark, Kansas Rehabilitation Center for the Blind, Topeka, Kansas.
2. "A New Approach to Teaching Handwriting to the Blind," by Claudell S. Stocker, Kansas Rehabilitation Center for the Blind, Topeka, Kansas.
3. "Longhand Writing for the Blind," by Elizabeth Freund, Overbrook School for the Blind, Philadelphia, Pa.
4. "Handwriting Manual; A Reference Manual for Rehabilitation Teachers Working with the Adult Blind." School of Graduate Studies, Western Michigan University.
5. "Teaching the Blind-Script Writing by the Marks Method," a manual by Marks, A.F.B. Education Series No. 8 (1954-55) A.P.H. 6-3985.
6. "Script Writing for Blind Youths," by Casey. Braille 1964, Minnesota State Services for the Blind (Transcription Unit) 555 Wabash St., St. Paul, Minn. 55102.
7. "Now I Learn to Write," by Davidson & Bobbs, 1966 (large type) Sighttext Publications, 302 North 13th St., Philadelphia, Pa. 19907
8. "We Talk, Spell, and Write," 1957, Book 2, Library of Congress, 487320, Thermoform copy.
9. "The Story of Writing from Cave Art to Computer," by Cahn. 487260 Harvey House 1963, Industrial Home for the Blind Library, 320 Hempstead Turnpike, West Hempstead, New York 11552

### Tangible Aids

#### Procured Locally

1. Soft wire, solid wire, acid free
2. Moulding clay
3. Twine, of various sizes, glue, and cardboard
4. Sandpaper letters, glue and cardboard
5. Felt tipped pens, ball point pens, large led pencils and magic markers.
6. Masonite or pressed board one-eighth inch thick engraved by router in any workshop
7. Raised single ovals of cardboard pasted on masonite or cardboard graduated sizes from one inch to four inches.
8. Screen board, hardware cloth
9. Wooden stylus
10. Wax or grease pencil

11. Tracing wheel
12. China marker

#### VIII. Other Sources of Supply

1. Grooved fiber writing cards 8 1/2"x 11". The Howe Press, Perkins School for the Blind, Watertown, Mass. 02172
2. Marks board A.F.B.
3. Arkansas Stringboard, Arkansas Enterprises for the Blind, Little Rock, Arkansas (special order only)
4. Embossed pencil; writing paper 10 1/2"x 8 3/4" A.P.H.
5. Templets - Stevens Brothers Foundation, Inc. 610-612 Endicott Bldg., St. Paul, Minn. 55101
  - Templet Envelope Addresser for the Blind (cardboard)
  - Templet Signature Card for the Blind (cardboard)
  - Templet Letter Writer for the Blind (cardboard)
  - Enlarged Embossed Telephone Dial for the Blind



## SYLLABUS FOR ORAL COMMUNICATION INSTRUCTION IN A REHABILITATION CENTER FOR THE BLIND

Note: The "Introduction to the Use of the Syllabus" should be made available to each instructor, either as a ready reference or copied and attached to this specific area of instruction syllabus.

### I. Assessment of the Person

- a. Adventitious blind
- b. Congenital blind
- c. Partial sighted
  - 1. Assess the effective use of sight
  - 2. What specific needs for oral communication instruction are indicated for this person because of the loss of sight and its effect?
- d. For the adventitious blind person
  - 1. What previous use did this person make of oral communication?
  - 2. What restoration of this skill does this person need to function as ably as he did previously; telephone, public speaking, or conversation?
  - 3. Does this area of instruction offer this person a new ability needed because of the disability of blindness?
  - 4. Assess the impairments that could prevent satisfactory participation and benefits from this instruction.
- e. For the congenital blind person
  - 1. Assess the experience and present indications for this person's need to develop oral communication.
  - 2. Assess the specific developmental needs seen, such as:
    - (a) mannerisms in speech
    - (b) mannerisms in posture
    - (c) mannerisms of voice including quality, pitch, rate and force.
    - (d) body language: twisting, restlessness, spasmodic breathing and sighing, when in conversation, individually and in groups.

### II. Basic Interpretation of the Skill of Oral Communication in a Rehabilitation Center for the Blind

- a. Oral communication and its effective use by the visually handicapped and blind person involves a much broader area than the spoken word. It is concerned with the total presentation of the person in the spoken word and body language. There needs to be a consistency, or harmony, in the spoken word and the body language. Consistency, or harmony, requires some expression of physical response appropriate to the words. As an example, if one says "good morning," but it is accompanied by a scowl, this is an inconsistent and unharmonious performance. It can create in others an aversion which sets up barriers to acceptance of the person who presents himself in this "out of harmony" manner. Skill in oral communication can create acceptance

rather than rejection. Telephone usage may be effectively developed in oral communication instruction. Speaking to, into, or through mechanical devices often creates a self-consciousness that impedes effective oral communication.

- b. Vision is such an important sense in maintaining postural orientation and movement that its loss, many times, creates a stunning and abnormal body behavior pattern to the view of others. If such persons are to attempt postural compensation, the remaining senses must be trained to direct tone, stance and movement. In the sighted population, such deficiencies are often modified by instruction in speech courses, especially when public appearances are one objective of the course.
- c. Mannerisms in oral communications are patterns of talking and acting that create aversion in observers and causes rejection of the person speaking. Specific mannerisms which need instruction for developing more favorable patterns are:
  - 1. Lack of facial response, "smile when you say that."
  - 2. Talking with one's back or side toward the person being spoken to.
  - 3. Speaking without appropriate tone or gesture.
  - 4. Talking to a person while looking down, or toward, the floor instead of facing the person being addressed.
  - 5. Rocking and swaying motions of the body while talking, listening to another person or in a group, or when sitting alone.
- d. Selection of person who needs oral communication instruction.
  - 1. Persons who express interest.
  - 2. Persons referred when the need has already been identified by another person.
  - 3. Persons assessed by the staff to have a need for instruction in this area.
  - 4. Persons who exhibit mannerisms calculated by trained observers to create aversion in others, especially aversion in the lay public, and prospective employers.
  - 5. Persons who show timidity and appear to be overly self-conscious in talking to a small group, or in personal conversation.
  - 6. Persons with either abnormally slow, or rapid speech.
  - 7. Persons with need, and who have the ability to benefit from training and able to function in such a group.

## II. Evaluation of Present Functional Skill

- a. This person possesses marked, mild, or no mannerisms.
- b. This person shows marked, mild, or no timidity, or self-consciousness of a distracting nature.
- c. This person speaks to individuals or groups at a distracting rate of speed; distractingly slow, or distractingly fast, or distractingly indistinct.

- d. This person has much, some, or no, awareness of problems of oral communication.
- e. This person has much, little, none, or adequate ability to develop this skill beyond present function for certain reasons; such as low ability, organic disorder, psychological disorder, or rigid social and cultural limitations.
- f. Person can or cannot benefit from formal or informal training which?

#### IV. Tentative Assessment of Goals of Instruction in Oral Communication

- a. Fundamental purpose of oral instruction is to assist the person to make a comfortable and acceptable presentation of himself. Varying goals of achievement may guide instructors and motivate the trainee. Tentative goals and functional uses may be set according to individual interest and need through formal, informal, or individual instruction.
- b. Goals: (1) easy and comfortable speech (2) distinct speech (3) appropriate body language (4) public speaking (5) personal taped letters (6) dictation by tape (7) composing on tape (8) remedial speech
- c. Refinement of English usage should occur as an outgrowth, rather than become a technical area of instruction. Group discussion and feedback can be used as a development process of rehabilitation and is a worthwhile goal. Discussion, however, is directed in this instance to the development of oral communication skill and its full range of acceptable performance. It is difficult, perhaps impractical, to set levels of achievement in this area similar to those set in other areas of skill. Remember the personal goals and work toward them.

#### V. Preparation of the Trainee for Oral Communication Instruction

Note: Many persons are afraid to hear their own voice, yet everyone loves to hear his name called in a pleasing manner. Oral communication is the one functional area of performance in which the visually handicapped and blind person can compete on the most nearly equal or superior level of performance with the sighted, if one will but develop the ordinary powers of speech usually possessed. This is not oratory, nor is oratory the objective. If an instructor believes that oral communication can become a positive influence by which the trainee can receive wonderful fulfillment, then create such an image of this skill.

- a. For the person who needs motivation and shows fear and concern, help him to feel this is simply improving his ability to talk with others, either face-to-face, by telephone, or by recordings.
- b. Present this area of instruction as one in which many pleasant and enjoyable experiences can be expected, such as: listening to



fine musical interpretations; listening to some reproductions of masterpieces, i.e., "Gettysburg Address" and other famous masterpieces and perhaps hearing one's own voice on a recording may be motivating.

## VI. Instructional Process

- a. With the exception of telephone instruction, the area of instruction lends itself to a group function very well but individual instruction may be necessary. It also has the potential for group motivation and esprit de corps.
- b. Schedule the training periods and select definite procedures and activities for group participation, as well as individual participation and instruction.
- c. "Ice-breaker" exercises provide an excellent orientation for a group. Such exercises as a period of self-introduction, or introduction of the person to one's "right" or to one's "left." (introducing neighbor.)
- d. Instructor can aid the "ice-breaking" by setting the example: tell one's own name; some humorous incident; cute baby trick one's parents tell about; or an embarrassing little incident one was able to laugh about when it was over; the "shaggy dog yarn" that gives others a laugh and harms no one.
- e. Discretion on the part of the instructor in selecting the person most ready to make the first "ice-breaker" move is a technique of stimulating group participation that is well proven in social psychology.
- f. Group involvement, in creating an agenda of topics about which the group can speak, usually stimulates interest and enthusiasm. The agenda and schedule should be flexible enough to accommodate "living issues of the day."
- g. Criteria of group and individual performance may also be developed by group participation, at least to some extent. Instructor, however, must remember the goals of group and individual need and be certain these goals are not omitted.
- h. "Dale Carnegie" and "Toastmaster Club" techniques afford excellent opportunities of group participation and growth techniques, however, the instructor may devise other techniques equally as effective.
- i. Awareness of body language must be a persistent objective of the instructor, if persons having the greatest need for development are benefitted.
- j. Telephone instruction and usage can be developed in a group instructional setting, but initial instruction of mechanical use of the telephone by whatever digital method might be better accomplished on an individual basis. This is a determination to be made in specific instances. Group reinforcement in role-play can be done, depending upon available equipment.
  1. Methods: four finger, or other
  2. Scope of instruction:
    - (a) residential use, private and party-line etiquette

- (b) pay station usage
- (c) placing collect calls
- (d) distance dialing
- (e) paging systems
- (f) switchboard operation

## VII. Evaluation of Progress

- a. Daily, or as soon as practical after group purpose esprit de corps is established, evaluation should begin.
  - 1. Record the performance as exhibited at the beginning, for later playback.
  - 2. Maintain records of successive achievement or lack of achievement for the group and each individual.
- b. Record the group's evaluation by Toastmaster critique, or other chosen critique.
- c. Obtain self-evaluation ratings and review performance as seen by others.
- d. On sensitive persons, emphasize positive factors of progress, even though compared to others, achievement may be low, but hold up goals that appear to be attainable.
- e. Incorporate summary of daily and weekly progress in monthly reports.

## VIII. Materials of Instruction

Note: This area lends itself to a profuse use of electronic aids, but such aids must be used discreetly to instruct on fine points of sound and voice qualities, rather than entertainment.

### Electronic Aids

- 1. Talking Book Machine, local sources
- 2. Audio Notebook, Model 200, Electric Futures Inc., Hartford, Conn. (short tape, wide band recorder) local sources, Little Rock, Allstate Supply Co.
- 3. Tape Recorders
  - a. Reel type
  - b. Cassette type, pocket recorders
- 4. Language Master
- 5. Telephone: A PBX system, or a single, dial, or other unit locally used.

### Books

- 1. "Developing Your Speaking Voice," by Kauk, Harper Bros. 1953 source: Recordings for the Blind, Inc. 215 E. 58th St. (disc) New York, N. Y. 10022
- 2. "Speech Improvement Plan Designed to be Used in a Rehabilitation Center for the Blind," by Clell Jay Smith, Speech Correctionist, Kansas Rehabilitation Center for the Blind, Topeka, Kansas (print)

3. "The Dynamics of Discussion," Recordings for the Blind,  
N. Y. (disc)
4. "Improvement of Voice and Diction," by Eisenson; Macmillan  
1965 (tape)  
source: Iowa Commission for the Blind, 4th & Keo, Des Moines,  
Iowa 50309
5. "Phoenetics," by Carroll & Tiffany McGraw-Hill 1960 (tape)  
402 Kapahula Ave., Honolulu, Hawaii, 96815
6. "Readings in Speech," by BasuaJean (disc) Harper & Row 1965  
source: Recordings for the Blind, N. Y.

Periodicals

New Outlook - May 1967 p. 158  
 New Outlook - June 1967 p. 201  
 New Outlook - Dec. 1967 p. 331  
 New Outlook - Sept. 1968 p. 231  
 New Outlook - Oct. 1968 p. 261



## SYLLABUS FOR INSTRUCTING READING BY LISTENING IN A REHABILITATION CENTER FOR THE BLIND

Note: The "Introduction to the Use of the Syllabus" should be made available to each instructor, either as a readily available reference or copied and attached to this syllabus for the benefit of the instructor when using this specific syllabus.

### I. Assessment of the Person

- a. Adventitious blind
- b. Congenital blind
- c. Partial sighted
  1. Assessment in each of the three foregoing states of sight loss are essentially based upon three factors.
    - (a) physical conditions, hearing loss, speech loss, neurological abnormality or organic soundness.
    - (b) social and cultural development including such factors as formal education, vocabulary, sub-cultural dialect.
    - (c) motivation for learning
  2. Hearing for the blind is the sense most likely to impair the person's development or contribute to the person's progress.
  3. Other conditions which contribute to restlessness should be observed, but these conditions may present no greater difficulty for learning by this mode than they may in any other area of instruction. Observe these conditions and refer for counseling and medical consultation if they appear to be obstacles to training.

### II. Basic Interpretation of Skill in Reading by Listening

- a. Hearing is the sense that enables a blind person to receive both near and distant sensory stimuli and is the sense organ used in this skill.
- b. Hearing is essential to the most efficient listening, but listening skill can be developed, even in the absence of perfect hearing.
- c. Cognizant listening can enable a person to more effectively use whatever degree of hearing that is possessed.
- d. Listening is an effective skill that can be used in all important functions of living independently and creating a new life.
  1. In orientation and mobility one can learn the locations of many important landmarks, determine the time of day and night, detect dangers at distances that enables one to seek safety, use the sounds of the footstep of others to guide one and to a very effective degree measure the size of a room and estimate closely whether it is furnished or unfurnished.
    - (a) New Outlook, April 68 p. 112 "Development of Perceptual Motor Abilities in Blind Children and Adolescents."

2. In acquiring knowledge, one's listening ability can be so trained that the major points of an audio presentation can be outlined with a high degree of accuracy. Listening is an assimilative skill and is a complementary skill to reading.
3. Efficient listening can do more to enable a visually handicapped and totally blind person to compete equally with the sighted person in acquiring information than any other skill that can be developed.
  - (a) The rate at which oral reading may be made available is the closest approximate volume of input to sighted reading.
  - (b) Reading and talking rates of words per minute are about twice or three times faster than any other method of word input available to the visually handicapped and blind person. The amount of free materials available for information and pleasure are almost unlimited.
4. Classification of listening skill
 

Note: For clarification and emphasis to the prospective trainee (or student), listening is an assimilative skill and is a complement of oral reading. The two, reading and listening, complement each other much the same as reading and writing do. For the visually handicapped and blind person, reading by touch and reading by listening are the two basic media for learning. When the simulative skills are not adequately developed, the whole educational process by which rehabilitation is accomplished may suffer.

### III. Evaluation of Functional Use of Reading by Listening

- a. Amount of Usage
  1. What devices or methods of reading by listening are known to the person, or possessed by the person.
    - (a) talking book machine
    - (b) tape recorders; large or small? cassette or reel?
    - (c) radio or T.V.
    - (d) telephone services
    - (e) personal readers
  2. What sources of materials for Reading by Listening are known to this person.
    - (a) Library of Congress (area address that provides service)
    - (b) volunteer services, such as Recordings for the Blind, Inc.
    - (c) commercial sources used?
- b. Present Efficiency of Listening
  1. Simple repetition of some instruction; such as would require use of framework of who, what, when and where.
  2. Devise a simple reading sample with a number of obviously salient points to be recalled.
    - (a) read once - and measure

(b) Repeat - and measure

Note: This may be done as a game, orally, and used simply to evaluate but also to indicate progress to the skeptical; no serious score keeping, but a beginning point.

IV. Tentative Assessment of Goals of Instruction in Reading by Listening

- a. Instruction in Reading by Listening should encompass more than the use of the tools of talking books, tape recorders, radios, television sets and telephones. Instruction should be organized to extend one's readiness to use the available sources and variety of devices available. Equally important and more vital to the rehabilitation process, is the instruction and evaluation of listening efficiency. Research in the project to develop this syllabus indicated a need for organized training. Research currently being conducted indicated that instruction in listening and evaluation of the results of instruction had demonstrated value for the visually handicapped and blind person.

b. Tentative Goals of Instruction

| <u>Knowledge</u>           | <u>Level</u> | <u>Use</u>                                                                       |
|----------------------------|--------------|----------------------------------------------------------------------------------|
| Talking book and telephone | 1            | Disc materials of all kinds, but limited chiefly to free materials               |
| Tape recorders             | 2            | Personal communication and emergencies; Instructional material produced          |
| Radio and T.V.             | 3            | Current information and news: entertainment: Educational courses                 |
| Personal readers           | 4            | Specific assignments: Educational materials: Unrecorded materials made available |
| How to listen              | 5            | To obtain the maximum information from the auditory stimuli in the environment.  |

V. Preparation for Instruction in Reading by Listening

- a. Review with the prospective trainee, the importance of gaining knowledge of his environment through the sense of hearing.
- b. Indicate that persons have been able to greatly improve their memory and recall, by developing effective listening.
- c. Indicate the materials available for reading by listening and the availability of improved devices for listening, such as the cassette tape recorders.
- d. Emphasize to prospective college students, the need for effective use of mechanical devices for reading by listening and also the effective use of personal readers. It is difficult to obtain recorded college texts when they are needed and personal readers may be essential.



## VI. Instructional Process

- a. Program learning materials for individuals - using the language master
- b. Use short reading exercises at the beginning, either recorded or read by personal reader; member of group may read if capable.
  1. Involve group in analyzing the materials read; seek to determine salient points of the reading; compare
  2. Re-read materials and seek to discover other salient points which were not heard in the first reading.
  3. Use both enjoyable, or pleasure reading materials and technical materials, such as instructions for assembling an article or a procedure.
- c. Lengthen the reading exercise, but always provide ample time for group involvement, or individual response.
- d. Invite guest speakers who have a prepared topic and seek to have the trainee (or trainees) when in a group to discover and list the speakers salient sub-topics.
- e. The principle of pretest and post test by which a trainee may compare his achievement and progress can be helpful. A file or record, perhaps kept by the trainee, by which comparisons of former scores on the same reading materials can be made, may prove to be very self-evaluating and motivating.
- f. Analyze a tape or record of various sounds: play game of "what was that sound" - "where was that sound."

## VII. Evaluation of Progress

- a. Evaluation of progress is so closely interwoven with the instructional process that, except for standardized materials, the evaluation of progress and instruction are accomplished nearly simultaneously.

## VIII. Materials of Instruction

### Devices

1. Talking book machines
2. Tape recorders, both cassette and reel type
3. Portable radios
4. T.V. listening, audio use
5. Language master

### References

1. "Listening Ability," by Paul T. Rankin, Ohio State University Press
2. "Learning to be Discriminating Listeners" English Journal, Jan. 1947

3. "Teaching Listening Through Listening-Type Tests, College English, Jan. 1952.
4. "Projects in Listening," by Frazier Alexander, Editor, Office of Research Services, Phoenix Union High Schools and Phoenix College, Phoenix, Arizona Jan. 1950.
5. "Kansas Listening Project" teacher's guide, tapes and manual (probably available) A.P.H. or Kansas Rehabilitation Center, Topeka, Kansas.
6. "Are You Listening," by Nichols and Stevens 1957, McGraw-Hill, New York, A.P.H.
7. "A Guide to Effective Communication - Listening and Speaking" 276 pages, by Ralph G. Nichols and Thomas R. Lewis. Wm. C. Brown Co., 1954, Dubuque, Iowa.

#### Tests

Brown-Carlsen Listening  
Comprehension Test - Harcourt  
Boace & World, Inc. New York

## SYLLABUS FOR INSTRUCTING ARITHMETIC & RELATED SKILLS OF COMPUTATION IN A REHABILITATION CENTER FOR THE BLIND

Note: The "Introduction to the Use of the Syllabus" should be made available to the instructor of this skill, either as a ready reference or copied and attached to this syllabus.

### I. Assessment of the Person

- a. Adventitious blind
- b. Congenital blind
- c. Partial sight
  - 1. Assess the effective use of sight.
  - 2. Is sight, or the degree of sight this person possesses, a factor to be considered in this skill? How is it a factor?
- d. Assessment of the adventitious blind person.
  - 1. Was there a level of math usage that has been destroyed by loss of sight?
  - 2. Does it appear this person's ability can facilitate partial or full restoration of former usage?
- e. Assessment of congenital blind person.
  - 1. How does this person's congenital state of blindness effect the degree of math function and usage?
  - 2. Does this person appear to possess the ability to overcome the deficits in this skill created by the congenital state of blindness, such as conceptualization of quantities.

### II. Basic Interpretation of Arithmetic and Related Skills of Computation

- a. Arithmetic is simply the name of the system by which we speak accurately of numbers; the amount of things; even in telling each other the number of fingers and toes we have or how far it is from one place to another, arithmetic is used.
- b. Arithmetic and other related sciences of numbers are used to plot the course of the flight to the moon, but most persons do not need to use these higher forms of knowledge and skill.
- c. Arithmetic in daily use is limited to very nearly the four fundamental skills of addition, subtraction, multiplication and division. Allegedly, the greatest use of these four is that of addition and subtraction. (84% is of non-professional usage)
- e. The major use of arithmetic knowledge each day is that of telling the time of day, making change, using the telephone or writing a street address and the zip code of all addresses.
- f. The basic use of arithmetic by the sighted person is done with pencil and paper, but when one cannot use this method, there are other ways of using the knowledge of arithmetic, some of which are as rapid or more rapid than the best sighted methods.



- g. Change making: knowing how to count one's own money is one basic skill everyone needs and a blind person can soon learn this skill.
- h. For more rapid work with math in doing what is known as "computations," the abacus has proved to be the most efficient tool for restoring the computation skill once possessed. For quick notations and computations of several numbers, it is the nearest restoration device to the pen, pencil and paper method.
- i. The numeral (numbers) symbols can be written in braille, but one need not wait until braille skill has been developed to learn to count money and make correct change.

### III. Evaluation of Present Functional Use of Arithmetic and Related Skills of Computation

- a. What level of math knowledge has this person; evaluate in terms of the four fundamentals, or grade level; fractions, decimals, and percentage are rather dependable functional guides to the upper levels of elementary math.
- b. What method of use has this person; pen, pencil and paper, felt pen and paper, other, or no method at all?
- c. Do present methods meet the daily demands of use, or educational and vocational objectives?
- d. Attitude toward math usage; interested? fearful? but recognizes need: skeptical or rejecting?

### IV. Tentative Assessment of Goals of Instruction

- a. Ability to reach some goal: How is it seen by the instructor? evaluate this potential.
- b. Goal possibilities:

| <u>Knowledge</u>                                                                               | <u>Level</u> | <u>Functional Use</u>                                                                                   |
|------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------|
| Counting change to one dollar                                                                  | 1            | To be able to make change, give it, and to count one's own:                                             |
| Remember numbers                                                                               |              | Addresses and phone numbers                                                                             |
| Four fundamentals                                                                              | 2            | Simple records and computations; at least addition and subtraction                                      |
| Abacus Usage                                                                                   | 3            | Computations using four fundamentals, fractions, decimals, percentages.                                 |
| Other aids such as: cubarithm arithmetic slate, circular slide rule, rapid mental calculations | 4            | Accommodate the usage of aids already known with which skills are partially developed, specialized uses |

- c. What goal does trainee set for himself; has trainee the potential for the goal and is he motivated to seek it?
- d. Begin with basic need of change making - - move to higher goals as potential and motivation later indicate.

#### V. Preparation for Instruction in Arithmetic and Related Skills of Computation

- a. Introduction of tactile materials related to coinage, and demonstrate systems of counting (identifying) paper money. Draw out trainee's methods.
- b. Accept trainee's method and suggest modifications if actually more efficient than ones used by facility - but evaluate efficiency.

Note: Most likely, no center can instruct in all aids that are available. Experience in center rehabilitation indicates the wisdom of choosing one aid that is accepted and limiting specialized instruction to that aid. A trainee's ability to develop skill by independent study should be utilized when the economics of instruction dictates this course of action.

- c. Thoroughly introduce the aid to be used by whatever method favored by the center's instructor; abacus, cubarithm slate, or other.

Note: This research supports the Cranmer Abacus as the best restoration skill for the pen, pencil and paper method.

#### VI. Instructional Process

- a. Begin at most basic level of need as set in goal. Making change, using telephone and addressing numbers, counting fingers, beads, coins, buttons, and stacking blocks, assortment of items - low level or high?
- b. Uses of aids
  - 1. Abacus
  - 2. Cubarithm arithmetic slate.
  - 3. Braille usage; if capable; slate, stylus or brailier.
- c. Schedule for training; systematically, follow manuals of instruction, seek feedback on problems and instruct for correction of errors and development of more accurate use of chosen aid.

#### VII. Evaluation of Progress

- a. For lower goals, interpret performance by comparative methods of progress; compare present skill with that of admission.
  - 1. Maintain daily records and interpret to trainee his ability to meet daily demands of math usage.

2. Interpret uses and skill in rates, ranges and specifics.
3. Make comparisons by monthly or other longer terms of reporting.
- b. In higher goals: aid used, process mastered, usage at present compared to beginning of training; innovation uses, and actual rates, amounts, and levels of work achieved.
- c. Evaluation in terms of meeting vocational training goals; employment goals, or future educational goals are functional interpretations that are valuable in post-center planning, how nearly has one reached the set goal, or the assessed potential.

## VIII. Materials of Instruction

### Books and Manuals

1. "Evaluation and Adjustment Series" (1956 Nemeth Code) World 1962, Perkins
  - (a) "Davis Test of Functional Competence in Mathematics" - Form Am. Davis, 1951 (4 pamphs., 75 pages 5-2975
  - (b) "Madden-Peak Arithmetic Computation Test - Form Am." (5-7612) Madden and Peak VI College - (5 pamphs., 2 pages, A.P.H.)
2. "National Braille Club Manuals 1956 Nemeth Code"
 

"Alphabetical Index of Nemeth Code to Braille Mathematics," Rev. 1956 N.B.C., 1960 (N.J. Com.) pamph. 21 pages) 5-8692, A.P.H.
3. "Using the Cranmer Abacus for the Blind," by Fred L. Gissoni (available in braille and large print) Braille Edition 6-5010 A.P.H. Large Type Edition 4-2711 A.P.H.
4. "The Japanese Abacus; its Use and Theory," by Takaski Kojima, Charles E. Tuttle, Co., Rutland, Vermont

### Aids

1. The Master Cube, (can be used to visualize all four fundamentals) 1-0336 - A.P.H.
2. Texas Arithmetic Slate and Type
 

Frame 1-0056

Arithmetic type 1-0057

Wooden pegs (set of 100) 1-0327 A.P.H.
3. Taylor Slate and Arithmetic Type
 

Frame 1-0060

Plastic type 1-0061

Lead type 1-0062 A.P.H.
4. Cranmer Abacus 1-0315 A.P.H.



5. Myer Abacus, by Delmer Myer, 2207 South Washington, Wichita, Kansas.
6. Graphic Aid for Mathematics (used for developing graph concepts) 1-0046 A.P.H.

Other materials may be selected as desired, by using the Central Catalog, A.P.H. and consulting the section on mathematics.

## SYLLABUS FOR INSTRUCTING TYPEWRITING IN A REHABILITATION CENTER FOR THE BLIND

Note: The "Introduction to the Use of the Syllabus" should be made available to each instructor, either as a ready reference or copied and attached to this specific syllabus.

### I. Assessment of the Person

- a. Adventitious blind
- b. Congenital blind
- c. Partial sighted
  1. Assess the effective or functional use of sight to determine use of manual for instruction and method of instruction.
  2. Estimate motivation for this skill - therapeutic, personal usage, or vocational usage.
- d. Condition of need
  1. A rehabilitation - restoration of skill, once possessed.
  2. A habilitation - development of a new functional skill.

### II. Basic Interpretation of Skill to the Person

- a. This is a mechanical and skilled method of communicating with sighted person, well accepted, and can be used for personal business and professional writing.
- b. This is a method of writing that has been developed, whereby, a person writes by a touch system and does not use sight to direct the work of his fingers.
- c. There are many uses of this skill in the business world. Both men and women can find it a valuable skill and blind persons have been known to develop sufficient skill to compete successfully with sighted persons.
- d. Persistent practice and acceptance of instruction are the basic factors for achieving a high degree of competency.
- e. There are two types of power for doing typewriting; electric and manual. Persons should first learn on the manually powered machine.
- f. Some employment opportunities cannot be considered unless one has developed typewriting skills to certain minimum levels of performance. These levels of performance can be very accurately measured.

### III. Evaluation of Present Functional Skill in Typewriting

- a. Estimate, (or make exact) evaluation of present knowledge and skill
  1. Statement of previous training, where taken, how used, when, or how recently used.
  2. Estimate of performances:
    - (a) speed - words per minute; marginal and tabular set skill

- (b) other skilled operation, such as inserting paper, observing marginal limits
- (c) obtain a sample of work (if previously used) analyze and interpret level of performance, emphasizing present achievement and suggesting needed improvement. Indicate estimated potential for developing more competence.
- (d) hold out uses of high and low level skill for this person as seen in evaluation, such as:
  - (1) personal correspondence for low performer.
  - (2) transcriber and typist for medium performance.
  - (3) specific vocational requirements as known for higher competence.
- (e) observe physical capacities and need for special instructional procedures.
  - (1) orthopedic problems
  - (2) emotional problems, nervous tension
  - (3) organic problems
- (f) what is basic purpose or motivation for using this skill of communication?
  - (1) therapy: physical and psychological
  - (2) personal use
  - (3) vocational usage
- (g) has the person the ability to achieve to the level of his motivating forces? If not, state factors preventing.

#### IV. Tentative Assessment of Goals of Instruction

| <u>Knowledge or Performance</u>                                                           | <u>Level</u> | <u>Functional Use of Skill</u>               |
|-------------------------------------------------------------------------------------------|--------------|----------------------------------------------|
| Persistence in practice & directs self at practice                                        | 1            | Therapy                                      |
| Inserts paper, writes poorly but writing has meaning                                      | 2            | Personal correspondence to family            |
| Good spelling, corrects typing errors, sets and observes marginal setting, knows keyboard | 3            | Correspondence with friend; business letters |
| Minimum errors; 40 words per minute net                                                   | 4            | IRS training                                 |
| 60 words per minute                                                                       | 5            | Vocational objective may be specific         |
| Use of braille manuals or other copy, and transcription equipment                         | 6            | More specialized use                         |



## V. Preparation for Instruction

- a. Introduction (orientation) to typing laboratory
  - 1. Isles and arrangement of furniture; partitions, practice positions
  - 2. Location of supplies
  - 3. Location of instructor's desk and depository of daily practice assignments.
- b. Orientation to the typewriters
  - 1. Manual machine: (similarity to others used) or specific machine sets and controls
  - 2. Electric machines, the sounds and other equipment that may emit sounds.
- c. Orientation to table, chairs, equipment and locations of practice areas.

## VI. Instructional Process

- a. Adjust table and instruct the person on proper height of table, chair, and posture for typewriting.
- b. Instruct in use of touch system
  - 1. Prepare special assignments as ability to use indicates.
  - 2. Work toward progressive development of accuracy; speed later.
  - 3. Remember tentative goals -
- c. Regard accurate spelling as an essential of typewriting skill.

## VII. Evaluation of Progress

- a. Compare first sample exercise for accuracy.
- b. Evaluate spelling.
- c. Adopt and use dependable speed standard.
- d. Evaluate tolerance, both physical and psychological.
- e. Evaluate ability to follow directions and accept supervision.
- f. Evaluate attendance and amount of work produced.
- g. Evaluate total performance in the light of the goals set - be specific - for personal use only; specific job demands; such as transcription demands.

## VIII. Materials of Instruction

### Manuals

- 1. "Twentieth Century Typing," complete course, 8th Edition, Lessenberry, Southwestern Publishing Company, Dallas, Texas, Braille - Adult, 14 volumes 6-4782.

2. "Typing in Ten Easy Lessons," by Ruth Ben'Ary (record)  
Library of Congress.
3. "Typing Simplified," by Leslie and Pepe; Large Type, Board  
of Education and Services for the Blind, State Office  
Building, Hartford, Conn.
4. "Typing With One Hand," by Nona K. Richardson (record)  
Southwestern Publishing Co., Dallas, Texas.
5. "How You Spell It" (braille) Sperry-Rand, Inc. 1957  
Books for the Blind, 225 North Country Club Rd., Tucson,  
Arizona A.P.H. 5-5823.
6. "Sound Spelling" (recordings) by Austin E. Ridenour, (print)  
Hadley School for the Blind, Library of Congress.
7. "Basic Sight Vocabulary of 220 Words," by Edward W. Dolch.
8. "Typing for Partially Seeing and Blind Pupils;" Teachers'  
Guide, 3rd Edition, Cohoe, Board of Education of Detroit,  
1960-62 A.P.H. 6-4872
9. "Modern Basic Typewriting" (for personal use students) Large  
Type, IV-Adult, 1 volume, A.P.H. 4-1406, Scott etl. Pittman Pub.
10. "Letter Perfect" - braille and large print, A.P.H. 1959  
Dictaphone Corporation, 420 Lexington Ave., N. Y. 17.

#### Miscellaneous

Each center participating has developed many tapes, manuals of instruction and exercises for specific developments. These are not published but would be fruitful materials for in-service training of center personnel.

# EXHIBIT A

Name of Trainee \_\_\_\_\_ Mo. Ending \_\_\_\_\_ Mos. in Training \_\_\_\_\_

Address \_\_\_\_\_ County \_\_\_\_\_

| COURSES                              | P | Q | A | H | PARAGRAPH SUMMARY |
|--------------------------------------|---|---|---|---|-------------------|
| BRaille                              |   |   |   |   |                   |
| Inst:<br>CERAMICS                    |   |   |   |   |                   |
| Inst:<br>COOKING                     |   |   |   |   |                   |
| Inst:<br>CRAFTS                      |   |   |   |   |                   |
| Inst:<br>DEMANDS FOR<br>DAILY LIVING |   |   |   |   |                   |
| Inst:<br>EDIPHONE                    |   |   |   |   |                   |
| Inst:<br>GRAMMAR                     |   |   |   |   |                   |
| Inst:<br>GROOMING                    |   |   |   |   |                   |
| Inst:<br>HEALTH                      |   |   |   |   |                   |
| Inst:<br>HOUSEKEEPING                |   |   |   |   |                   |
| Inst:<br>INDUSTRIAL<br>ARTS          |   |   |   |   |                   |
| Inst:<br>LAUNDRY                     |   |   |   |   |                   |
| Inst:<br>PHYSICAL<br>EDUCATION       |   |   |   |   |                   |
| Inst:                                |   |   |   |   |                   |



## EXHIBIT A

Mo. Ending \_\_\_\_\_

- 2 -

Name of Trainee \_\_\_\_\_

| COURSES                   | P | Q | A | H | PARAGRAPH SUMMARY |
|---------------------------|---|---|---|---|-------------------|
| SEWING                    |   |   |   |   |                   |
| Inst:                     |   |   |   |   |                   |
| SPEECH                    |   |   |   |   |                   |
| Inst:                     |   |   |   |   |                   |
| SPELLING                  |   |   |   |   |                   |
| Inst:                     |   |   |   |   |                   |
| STAND                     |   |   |   |   |                   |
| Inst:                     |   |   |   |   |                   |
| TRAVEL                    |   |   |   |   |                   |
| Inst:                     |   |   |   |   |                   |
| TYPING                    |   |   |   |   |                   |
| Inst:                     |   |   |   |   |                   |
| UNSCHEDULED<br>ACTIVITIES |   |   |   |   |                   |
| Inst:                     |   |   |   |   |                   |

Additional comments:

cc: Original-State Office  
 2nd copy-Counselor  
 3rd copy-Social Worker  
 4th copy-Center Files  
 5th copy-Principal or  
 Director of Training

P=Progress This Month  
 Q=Quality of Work  
 A=Attitude  
 H=Scheduled Classroom  
 Hours Per Week

A=Superior  
 B=Above Average  
 C=Average  
 D=Below Average  
 U=Unsatisfactory

EXHIBIT B  
EVALUATION CHECK LIST--TYPING

NAME:

AGE:

DATE:

INSTRUCTOR:

1. Any typing knowledge
 

|     |    |
|-----|----|
| yes | no |
| yes | no |

  - a. formal training
  - b. extent
  
2. How have they used typing:
  
3. Wants typing:
 

|     |    |
|-----|----|
| yes | no |
|-----|----|

  - a. why?
  
4. Performance:
 

|                                    |         |              |              |
|------------------------------------|---------|--------------|--------------|
| a. hand dexterity                  | good    | satisfactory | poor         |
| b. insert paper                    |         | yes          | no           |
| c. straighten paper                |         | yes          | no           |
| d. knows basic hand position       |         | yes          | no           |
| e. knows basic parts of typewriter |         | yes          | no           |
| f. knows location of               | letters | numbers      | symbols none |
  
5. Able to write name:
 

|     |    |
|-----|----|
| yes | no |
| yes | no |

  - a. legible
  
6. Comments:
  
  
  
7. Recommendations:

# EXHIBIT B

## SUMMARY OF STUDENT'S PROGRESS IN TYPING

Name .....

### I. Objectives:

Dates

|                                                                          |  |  |  |  |  |  |
|--------------------------------------------------------------------------|--|--|--|--|--|--|
| 1. Use typing as a means of further developing manual dexterity          |  |  |  |  |  |  |
| 2. Enable student to type own correspondence                             |  |  |  |  |  |  |
| 3. Enables student to type college papers                                |  |  |  |  |  |  |
| 4. Bring student to point of being able to undertake vocational training |  |  |  |  |  |  |

### II. Present Level of Achievement

Dates

|                                           |  |  |  |  |  |  |
|-------------------------------------------|--|--|--|--|--|--|
| 1. Learning the keyboard                  |  |  |  |  |  |  |
| 2. Learned the keyboard                   |  |  |  |  |  |  |
| 3. Lacks accuracy for achieving objective |  |  |  |  |  |  |
| 4. Lacks speed for achieving objective    |  |  |  |  |  |  |
| 5. Objectives achieved                    |  |  |  |  |  |  |
| 6. Typing speed                           |  |  |  |  |  |  |

### III. Personal Problems Noted:

### IV. Comments

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### V. Recommendations:

|                                |  |
|--------------------------------|--|
| A. Length of time in area      |  |
| B. Further practice            |  |
| C. Further practice not needed |  |
| D. Other                       |  |

(Note: If more space is needed for comments and recommendations, use extra sheet provided)



# EXHIBIT B

## SUMMARY OF STUDENT'S PROGRESS IN ORAL COMMUNICATIONS

Name.....

### I. ABLE TO EXPRESS ONE'S SELF

Dates

| In Groups | Individually |  |  |  |  |  |  |  |  |  |
|-----------|--------------|--|--|--|--|--|--|--|--|--|
| Very Good |              |  |  |  |  |  |  |  |  |  |
| Good      |              |  |  |  |  |  |  |  |  |  |
| Fair      |              |  |  |  |  |  |  |  |  |  |
| Poorly    |              |  |  |  |  |  |  |  |  |  |

### II. LISTENING SKILLS

| In Groups | Individually |  |  |  |  |  |  |  |  |  |
|-----------|--------------|--|--|--|--|--|--|--|--|--|
| Very Good |              |  |  |  |  |  |  |  |  |  |
| Good      |              |  |  |  |  |  |  |  |  |  |
| Fair      |              |  |  |  |  |  |  |  |  |  |
| Poorly    |              |  |  |  |  |  |  |  |  |  |

### III. DEFICIENCIES IN THE AREA

|                              |  |  |  |  |  |
|------------------------------|--|--|--|--|--|
| 1. Poor Direction            |  |  |  |  |  |
| 2. Poor Pronunciation        |  |  |  |  |  |
| 3. Poor Voice Quality        |  |  |  |  |  |
| 4. Limited Vocabulary        |  |  |  |  |  |
| 5. Poor Speller              |  |  |  |  |  |
| 6. Deficient in Grammar      |  |  |  |  |  |
| 7. Material Poorly Organized |  |  |  |  |  |

### IV. Personal Problems Noted:

### V. Comments:

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### VI. Recommendations:

|                                |  |
|--------------------------------|--|
| A. Length of time in area      |  |
| B. Further practice needed     |  |
| C. Further practice not needed |  |
| D. Other                       |  |

# EXHIBIT C

## EVALUATION OF COMMUNICATION SKILLS

NAME \_\_\_\_\_  
 DATE OF INITIAL EVALUATION \_\_\_\_\_  
 DATE OF FINAL EVALUATION \_\_\_\_\_

### KEY:

- I - Initial Evaluation
- F - Final Evaluation
- \* - See Narrative
- X - Indicates inadequate vision to read

- 1 - Good
- 2 - Adequate for needs
- 3 - Needs more study
- 4 - Poor
- 5 - No Knowledge

|                                                      | <u>I</u> | <u>F</u> |
|------------------------------------------------------|----------|----------|
| <b>I. FUNCTIONAL BEHAVIOR IN THE CLASSROOM</b>       |          |          |
| A. Attitude toward others in the class - - - - -     | _____    | _____    |
| B. Instructor-Client relationship - - - - -          | _____    | _____    |
| C. Attitude toward constructive criticism - - - - -  | _____    | _____    |
| D. Ability to use constructive criticism - - - - -   | _____    | _____    |
| E. Ability to take instructions - - - - -            | _____    | _____    |
| F. Ability to evaluate own work - - - - -            | _____    | _____    |
| G. Ability to make corrections - - - - -             | _____    | _____    |
| H. Care and use of materials and equipment - - - - - | _____    | _____    |
| I. Ability to work independently - - - - -           | _____    | _____    |
| J. Physical endurance in keeping schedule - - - - -  | _____    | _____    |
| <b>II. METHOD AND PERFORMANCE LEVEL OF READING</b>   |          |          |
| A. Braille: Grade _____                              |          |          |
| 1. Own writing - - - - -                             | _____    | _____    |
| 2. Text - - - - -                                    | _____    | _____    |
| B. Regular inkprint - - - - -                        | _____    | _____    |
| C. Sightsaving print - - - - -                       | _____    | _____    |

EXHIBIT C

I

F

- |                            |       |       |
|----------------------------|-------|-------|
| D. Handwriting - - - - -   | _____ | _____ |
| E. Talking Book - - - - -  | _____ | _____ |
| F. Tape Recorder - - - - - | _____ | _____ |

III. METHOD AND PERFORMANCE LEVEL OF WRITING

- |                                                |       |       |
|------------------------------------------------|-------|-------|
| A. Braille: Grade_____                         |       |       |
| 1. Slate - - - - -                             | _____ | _____ |
| 2. Brailier - - - - -                          | _____ | _____ |
| B. Handwriting - - - - -                       | _____ | _____ |
| C. Printing - - - - -                          | _____ | _____ |
| D. Typing - - - - -                            | _____ | _____ |
| E. Composing on the tape recorder - - - - -    | _____ | _____ |
| F. Composing on the tape transcriber - - - - - | _____ | _____ |

IV. ARITHMETIC COMPUTATION

- |                                              |       |       |
|----------------------------------------------|-------|-------|
| A. Graphic skill - - - - -                   | _____ | _____ |
| B. Braille - - - - -                         | _____ | _____ |
| 1. Slate - - - - -                           | _____ | _____ |
| 2. Brailier - - - - -                        | _____ | _____ |
| C. Mental Computation - - - - -              | _____ | _____ |
| D. Abacus - - - - -                          | _____ | _____ |
| E. Knowledge of _____ Braille code - - - - - | _____ | _____ |

V. LANGUAGE SKILLS

- |                                            |       |       |
|--------------------------------------------|-------|-------|
| A. Spelling - - - - -                      | _____ | _____ |
| B. Grammar - - - - -                       | _____ | _____ |
| C. Punctuation - - - - -                   | _____ | _____ |
| D. Use of the Braille dictionary - - - - - | _____ | _____ |
| E. Use of the print dictionary - - - - -   | _____ | _____ |
| F. Verbal use of grammar - - - - -         | _____ | _____ |



EXHIBIT C

I

F

VI. AREAS OF EMPHASIS IN LISTENING

A. Sound orientation

- |                                                       |       |       |
|-------------------------------------------------------|-------|-------|
| 1. Attention to and awareness of environmental sounds | _____ | _____ |
| 2. Sound identification - - - - -                     | _____ | _____ |
| 3. Auditory discrimination - - - - -                  | _____ | _____ |
| 4. Sound localization - - - - -                       | _____ | _____ |
| 5. Interpretation of auditory cues - - - - -          | _____ | _____ |

B. Verbal Listening

- |                                                     |       |       |
|-----------------------------------------------------|-------|-------|
| 1. Understanding and following directions - - - - - | _____ | _____ |
| 2. Comprehension of oral instructions - - - - -     | _____ | _____ |
| 3. Verbal retention - - - - -                       | _____ | _____ |
| 4. Delayed recall - - - - -                         | _____ | _____ |
| 5. Voice identification - - - - -                   | _____ | _____ |
| 6. Listen for moods and meanings - - - - -          | _____ | _____ |

C. Memory Improvement

- |                                                   |       |       |
|---------------------------------------------------|-------|-------|
| 1. Qualities of a good listener - - - - -         | _____ | _____ |
| 2. Remembering directions - - - - -               | _____ | _____ |
| 3. Names of persons, places, and things - - - - - | _____ | _____ |
| 4. Number recall - - - - -                        | _____ | _____ |
| 5. Retention of learning - - - - -                | _____ | _____ |

D. Listening for Enrichment

- |                                                    |       |       |
|----------------------------------------------------|-------|-------|
| 1. Music interpretation and appreciation - - - - - | _____ | _____ |
| 2. Poetry - - - - -                                | _____ | _____ |
| 3. Drama - - - - -                                 | _____ | _____ |
| 4. Bird and animal sounds - - - - -                | _____ | _____ |

EXHIBIT D

EVALUATION OF FUNCTIONAL VISION - WRITTEN COMMUNICATIONS

Name \_\_\_\_\_ Date \_\_\_\_\_

Optical aid(s) used \_\_\_\_\_ Therapist \_\_\_\_\_

A. TYPING AND HANDWRITING: With or without optical aid, can trainee do the following (check one or both):

With Without

- ( ) ( ) 1. Read name of his typewriter? \_\_\_\_\_
- ( ) ( ) 2. Locate keys and levers on typewriter by sight? \_\_\_\_\_
- ( ) ( ) 3. Check scale on typewriter for zero? \_\_\_\_\_  
Length of scale? \_\_\_\_\_ Setting margins? \_\_\_\_\_
- ( ) ( ) 4. Locate errors in his typing? \_\_\_\_\_ re-position  
carriage to correct them? \_\_\_\_\_ At what distance? \_\_\_\_\_
- ( ) ( ) 5. See the form and spacing of personal and business letters?  
\_\_\_\_\_
- ( ) ( ) 6. Read addresses from address book? \_\_\_\_\_ Type them  
on letters and envelopes? \_\_\_\_\_
- ( ) ( ) 7. Check his own handwriting? \_\_\_\_\_
- ( ) ( ) 8. Read large-type material (18-24 pt. type)? \_\_\_\_\_  
At what distance? \_\_\_\_\_
- ( ) ( ) 9. Read material written with felt-tip pen? \_\_\_\_\_  
What size letters? \_\_\_\_\_ Distance? \_\_\_\_\_
- ( ) ( ) 10. Make out personal check on typewriter? \_\_\_\_\_  
By hand (without template)? \_\_\_\_\_
- ( ) ( ) 11. Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. MACHINES: With or without optical aid, can trainee:With Without

- ( ) ( ) 1. Read name of machine he is using? \_\_\_\_\_
- ( ) ( ) 2. Locate controls by sight? \_\_\_\_\_ Read names of  
different controls? \_\_\_\_\_ At what distance? \_\_\_\_\_
- ( ) ( ) 3. Read digital counter on tape recorder? \_\_\_\_\_  
See indicator light for recording level? \_\_\_\_\_
- ( ) ( ) 4. Read labels on tape reel? \_\_\_\_\_ On box? \_\_\_\_\_
- ( ) ( ) 5. See the tape when threading? \_\_\_\_\_
- ( ) ( ) 6. See the grooves embossed on recording disks or belts? \_\_\_\_\_  
\_\_\_\_\_
- ( ) ( ) 7. Other \_\_\_\_\_  
\_\_\_\_\_

C. RECREATIONAL AIDS: Can trainee:

- ( ) ( ) 1. Read regular playing cards? \_\_\_\_\_  
Giant-face cards? \_\_\_\_\_ at what distance? \_\_\_\_\_
- ( ) ( ) 2. Read pocket calendar? \_\_\_\_\_ Distance? \_\_\_\_\_
- ( ) ( ) 3. Other \_\_\_\_\_  
\_\_\_\_\_

D. TO IMPROVE TRAINEE'S USE OF HIS RESIDUAL VISION, have you tried any  
of the following:

1. Placing a hi-intensity (Tensor) light on typing desk or table, so  
he can focus it on work he wants to check? \_\_\_\_\_

Does this help? \_\_\_\_\_  
\_\_\_\_\_



2. Writing out words and sentences with black felt-tip pen, for him to practice typing on his own? \_\_\_\_\_  
Does yellow-tinted manila paper help him? \_\_\_\_\_
  3. Giving him assignments from large-print typing book (Modern Basic Typewriting)? \_\_\_\_\_
  4. Providing him with a portable reading stand to hold his reading material? \_\_\_\_\_
  5. Issuing him a "reading slit" or other masking device, to cover all but the lines he needs to read? \_\_\_\_\_
  6. Using Megascop to magnify practice material on typing desk? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
  7. Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- D. ADDITIONAL OBSERVATIONS AND RECOMMENDATIONS regarding trainee's vision and his ability to use it effectively \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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